THE

LONDON

[ME]DICAL REPOSITORY,

MONTHLY JOURNAL

AND

REVIEW:

COMPRISING A CORRECT ACCOUNT

OF THE

LATEST DISCOVERIES IN MEDICAL SCIENCE.

BY

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Quærere Verum. HORACE.

VOL. II.

FROM JULY TO DECEMBER, 1814.

London:

PRINTED FOR THE PROPRI[ETORS]

... [B]erwick

... sold by

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THE LONDON
Medical, Surgical, and Pharmaceutical
REPOSITORY.

No. 7. JULY 1, 1814. VOL. II.

HALF-YEARLY REPORT

OF THE

PROGRESS OF MEDICAL SCIENCE,

FROM JANUARY TO JUNE 1814.

> Altius his nihil est: hæc sunt fastigia mundi!
> Publica naturæ domus his contenta tenetur
> Finibus. MANIL. ASTRO.

MEDICAL SCIENCE should be considered, by Physicians at least, as the most exalted of human speculations; as the *Publica Naturæ Domus*, within which lies the perfection of mechanism, the principles of intellect and life, the controuling and protecting energies of the ANIMA MUNDI*. So extensive, indeed, should be the views of the Medical Philosopher, that the whole of the natural operations upon this earth, with the inventions and the institutions of man, as constantly acting on the principle of vitality, require to be comprehended within the sphere of his investigations. Nor has there been a deficiency of men, bred in the practice of the Medical Art, who

* The sublime, but obscure doctrine of the *soul of the world*, an intelligent principle that guides and informs all the operations of nature, was admitted in the schools of Grecian philosophy, by Pythagoras, Plato, Heraclitus, and Zeno; and until it can be demonstrated what vitality and intellect is, possibly the existence and operation of the *anima mundi* should not be denied, but rather recognised as the providence of the most perfect system of ethics that has existed or can exist.

have penetrated to the profoundest depths of science. Natural History, Chemistry, and Botany; the functions of health and the derangements of disease; moral and experimental philosophy; the operations of the mind, and the actions of corporeal organization; the visible creation, and the intellectual principle; the refinements of literature, and the abstruseness of mathematical learning, have equally been familiar to the Physician. But from various causes, scientific and philosophical researches have been extended, within a century, far beyond what had been witnessed at any preceding period. Among these causes, the formation of societies, with the publication of their transactions, and the establishment of MEDICAL JOURNALS, were not the least prominent and efficient.

The earliest society which thus contributed to the promulgation of natural knowledge, and the extension and improvement of science, was the Royal Society of London. The steps taken by this Learned Body, and its reputation rapidly spreading over Europe, produced similar feelings in Italy, France, Germany, Denmark, Sweden, and Russia. Societies, with objects of like importance, and with views directed to the production of the same effects, were formed at Paris, Montpelier, Thoulouse, Lyons, Bourdeaux, Dijon, Arles, Nismes, Soisons, Angers, Caen, Marseilles, Rouen, Montaubon, Rochelle, Amiens, Bezançan, Metz, Pau*; at Vienna, Berlin, Gottingen, and other parts of Germany, particularly the Academy *de Naturæ Curiosi*†; at Rome, Naples‡, Florence,

* The establishment of some of these Societies was very early. That at Soisons was formed in 1674, at Nismes in 1682, at Angers in 1685, at Lyons in 1700, at Bourdeaux in 1703, at Montpelier in 1706.

† The *Ephemerides Naturæ Curiosorum*, the Transactions of this Academy contained in many volumes, present to medical curiosity a copious fund of entertainment, and no inconsiderable portion of instruction.

‡ The Academy *Secretorum Naturæ*, the meetings of which were held in the house of Baptista Porta at Naples, seems to have

Verona, Padua, Modena, Bologna; at the Hague, Amsterdam, Haerlem, Rotterdam, Brussels, Upsal, Stockholm, Lund, Copenhagen, and St. Petersburgh. Nor was the impulse confined to Europe, and the Old World. The American Philosophical Society, and the Asiatic Society founded at Calcutta by Sir William Jones, nearly on the plan of the Royal Society of London, are evidences of the extensive range which a desire of promoting scientific knowledge had taken.

Of this general disposition to acquire and promulgate a knowledge of nature, taking its original impulse from the Royal Society, the British Islands have largely participated. The Medical and Philosophical Societies in London*, the Royal Philosophical, Medical, Physical, and Natural History Societies of Edinburgh; the Royal Irish Academy, the Experimental Society of Dublin for promoting natural knowledge, the Philosophical Society of Manchester, and the Medical Societies of many counties and towns, by the publication of learned and ingenious dissertations and collections of facts, have very largely contributed to the dissemination of science. But especially has the establishment of MEDICAL JOURNALS promoted an acquaintance with professional science, by diffusing a general desire to observe and to record facts; to reason and to theorize; affording also the means of doing so with effect, by presenting comprehensive views of the subject, and by eliciting a general acquaintance with the institutes and practice of the art, which, without such a medium, could hardly have been obtained; at the same time promoting and insuring reputation by an easy and certain publication.

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been a private association instituted by Porta, with the view to collect materials, which afterwards were condensed in his Natural Magic: it soon merged in the Academy Lyncei at Rome.

* The Royal Linnæan Society deserves to be particularly noticed for the extension it has given to Botanical Science, for the talent displayed in the various volumes of its Transactions, and for the respectability of its establishment.

It is obvious, however, that the benefits to be derived from this latter source must be commensurate with the plan and execution of such Journals. From their first* appearance in this country to the present time, a great diversity of plan, and various degrees of excellence in execution have been exhibited. In many Journals, a true feeling of science and professional respectability has been manifested; but some have endeavoured to support a "frail and feverish" existence by the pretence of combatting an empiricism of which they were themselves the main pillars and support, or by captious remarks on their contemporaries. Experience has nevertheless shewn, much to the credit of public sentiment, that the success and duration of *Medical Journals* has depended more on the fairness and liberality of their conduct, on their industry in collecting materials, and on the careful and correct arrangement of those materials, than on fallacious and fraudulent attempts to suppress quackery, or on the depreciation of their rivals.

Among this varied catalogue of periodical works, the LONDON MEDICAL REPOSITORY has endeavoured to raise and support a reputation, to obtain and secure public approbation, by industrious research and faithful detail.

Although the record of authentic facts has, and must always be esteemed by this *Repository* a most important branch of its duties; yet an occasional condensed review and historical arrangement of those facts, and of other materials as they are collected, cannot be without its use. Impressed with the propriety and efficiency of this, a REPORT, every six months, will be given, of the *Progress of Medical Science.* This *Report*, designed to form a species of *prologomena* to each volume of

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* The earliest work of this sort, published in this country, and appropriated entirely to Medicine, was the *Bibliotheca Anatomica, Medica, et Chirurgica*, which came out monthly, and went on to the extent of three quarto volumes; it was, however, not strictly a Medical Journal, but rather a re-publication of tracts, after the model of Le Clerc and Mangetus.

the work, will present a retrospect of discoveries and elucidations in Anatomy and Physiology, Materia Medica, Chemistry, Botany, and Natural History; an epitome of the progressive steps of the theory and practice of Medicine, Surgery, and Midwifery; with a synoptical view of the state of the atmosphere; and of the course, prevalence, tendency, and originality of DISEASES.

In the disposition of the subject matter of this *half-yearly* REPORT, there seems a natural propriety in commencing with the fundamental and elementary materials, proceeding on by the auxiliary sciences to the theory and practice, and concluding with a general view of results.

ANATOMY AND PHYSIOLOGY.

IN the visible structure and organization of the animal fabric, especially in the human subject, possibly but little now may be left to discover; consequently much novelty in Mechanical Anatomy is not to be expected, except in the developement of the formation of creatures lower in the scale of being than man, under the denomination of Comparative Anatomy. Here, indeed, much remains to be known; much that probably will elucidate, by analogy, the structure and functions of the human body.

Among the labours of the anatomist, which come nearest to the mechanical part of his art, as deducing conclusions from a more accurate knowledge of structure, may be reckoned the investigation of *Mr. Charles Bell*, respecting the muscular structure of the uterus; and an Experimental Inquiry into the Structure and Uses of the *Glottis* and *Epiglottis*, by M. Majendie, Professor of Anatomy and Physiology at Paris, which seems to have ascertained a fact before not well understood. By a careful dissection of the muscular, cartilaginous, and nervous structure of those parts, with divisions of the recurrent and laryngeal nerves during life, it appears to have been demonstrated, that the epiglottis is not essential to deglutition; but that at the moment of swallowing, the ascent of the larynx occasions the approximation of the margin of the glottis and aretynoid cartilages, so as completely to close the entrance into the trachea. In the dissections employed in this Inquiry, it is asserted that the recurrent and laryngeal nerves have been more minutely traced than by any preceding anatomist.

On the muscular structure of the human uterus, as influencing the natural actions of that organ, as producing rupture, as seen in cæsarean section, and as connected with uterine hæ-

morrhage, Mr. Charles Bell has produced a Memoir*; interesting from the practical inferences in it deduced from actual mechanism. In a case of cæsarean section, at which Mr. Bell was present, he describes the first effects of the touch of the knife on the muscular fibres of the uterus, as unexpected and very extraordinary: Instead of the form of a cut, the fibres instantly contracted what would otherwise have formed the edges of the incision; and instead of a wound being perceptible, there was in its place a round aperture, with concentric circles of fibres. A case of cæsarean section, though fatal in its termination, has, under the eye of a well-informed anatomist, considerable interest, from the correct notice of phenomena arising during the operation. The rationale of uterine hæmorrhage has received considerable illustration from this anatomical inquiry. The following observations, as fully explanatory of the cause of flooding during parturition, seem to require no addition, but are perfectly conclusive. "It has been proved by sections of the uterus, made in different states of its contraction, that the order of muscular fibres is calculated to close the vessels; and where nature has provided for the attachment of the placenta, there the broken vessels are guarded by the provision of the surrounding texture: but during this contraction of the superior part of the womb, the lower part dilates and relaxes. Now if the contraction of the womb be essential to the safety of the mother, what will be the effect of the attachment of the placenta to a part of the womb, which must relax during labour? Every one knows the peculiar danger of the case of *placenta previa*, that each labour pain increases the violence of the flooding, instead of checking it."

The inquiries of *Sir Everard Home* on the structure and functions of animated nature, so frequently call up the attention and deserve the regard of those who closely follow the progressive movements of science, that they must be considered as constituting a prominent feature in the history of anatomical discovery, not only in England, but on the continent. By his investigations of the *modus operandi* of the progress of digestion in various species of animals, a subject upon which he has been engaged for many years, Sir Everard was led to inquire into the particular uses of the lower intestines in birds and quadrupeds. The variety, both in extent and form, of the colon in different species of animals, led to the opinion, that in this intestine, particularly, the food, after the chyle is formed and separated from it, undergoes some changes, by which a secondary kind of nourishment is extracted. There are facts

* Medico-Chirurgical Transactions, vol. iv.

in natural history, especially as found in the *Casuarius Emu*, and the *Struthio Camelus**, which exceedingly strengthen this opinion. In the Casuary of Java, living in a region of great fertility, the colon is no more than one foot long: in the Ostrich, doomed to seek its food in the wide and sandy desert of the African continent, the colon is forty-five feet in length. This variety of formation in the colon extends to many species of animals, under circumstances easy or difficult, for the procuration of food. Out of this opinion, supported by so many facts, arose the hypothesis, that the lower intestines, especially the colon, constitute the elaboratory in which *animal fat* is formed. A series of experiments, under the immediate direction of that excellent chemist, Mr. Brande, were instituted with a view to determine if fact would support this hypothesis. The feces of birds and of the human subject were submitted to these experiments, and fat was actually extracted from them. It did also appear that bile was an important agent in the formation of the adipose material. Upon this hypothesis, supported by experimental facts, are founded some physiological and pathological conclusions, certainly of no minor importance in the animal œconomy†.

In that branch of anatomical science which inquires into the functions, properties, and energies connected with structure, considerable interest has been excited by the *Experiences sur la Principe de la Vie*, of M. le Gallois: and by a generalization and systematic arrangement of facts on the theory of vitality, by Mr. Abernethy‡.

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* In the Philosophical Transactions for 1813, p. 77, Sir Everard Home has minutely described the solvent glands and gizzards of the *Ardea Argala*, the *Casuarius Emu*, and the long-legged Casowary of New South Wales.

† As we intend to insert the whole of Sir Everard Home's Paper, "on the formation of fat in the intestines of living animals" in a future Number of the REPOSITORY, it will be superfluous to pursue the subject further in this Report.

‡ The completion and opening of *Mr. Brookes's* Anatomical Museum, (*vid. Repository, Vol. I. p.* 116.) in Blenheim Street, and the demonstrations of the brain by *Spursheim*, at the house of the Medico-Chirurgical Society, are two circumstances of some importance in the recent history of anatomical science. The first, by collecting and submitting to public observation a large series of anatomical subjects prepared and preserved with great skill, care, and labour, tends to promote the study of anatomy, by exciting inclination to the art, and by furnishing the means of acquiring knowledge: the second, by displaying with considerable skill and novelty the structure of the sensorium commune, may

Under the title of an Inquiry into the Nature of the Vital Principle, or in the bold language of Experiments upon the Principle of Life, M. le Gallois' investigation excited the attention of the National Institute of France, who selected from among its members M. M. Humboldt, Hallé, and Percy, to examine into the discoveries and merits of this production. After witnessing a repetition of the experiments by the author, and examining the results, opinions, and conclusions, with an acumen arising out of their profound knowledge of the subject, this committee pronounced the labours of M. le Gallois to be as interesting in the science of physiology, and certainly as important as any that have appeared since the learned inquiries of Baron de Haller.

The important point seemingly determined by the experiments of Gallois, is, that the *principle of sensation and of motion* does not reside in the *brain* generally, but particularly in the elongation of that organ: that is, in the *medulla oblongata*, and the *medulla spinalis*. This fact appears to be established by experiments ingeniously devised, and not a little surprising in their results. Some of those results, stated in the Report made to the Institute, applied to the brain, some to the

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lead to a clearer understanding of the properties and actions of the nervous system. Mr. Spursheim may be known to our readers as the coadjutor of Gall the craniologist, who, but a few years since, amused the continent with his attempts to explain the passions, the faculties, and the powers of the human mind, by certain external markings upon the human cranium. The surface of the cranium was divided for this purpose into twenty-seven circles of various diameter, within each of which, some faculty of the mind, or the sign of some faculty or passion of the mind, was placed; and according to the markings on the skull in that circle, strong or faint, was the degree of capacity in that particular faculty, or the ardency of that particular passion indicated. In conjunction with Gall, Mr. Spursheim afterwards undertook an illustration of the nervous system in general, and of the brain in particular. In the year 1808, the memoir on this subject was presented to the French National Institute, and examined by a committee composed of Tenon, Portal, Sabatier, Pinel, and Cuvier. From the report of this committee it appears, that the memoir of Gall and Spursheim was always ingenious and sometimes highly satisfactory. The lectures and demonstrations of Mr. Spursheim are conducted on the plan, and regulated by the principles of that memoir. In his demonstrations it is allowed that he has been dextrous, ingenious, and particularly successful in tracing the fibres of nerves among the cerebral substance, manifestly pointing out the decussation which previously had been little better than assumed, and by which some morbid phenomena are satisfactorily explained.

medulla oblongata and spinalis, and others to different portions of the nerves.

The cerebrum and cerebellum were removed, slice by slice, from a living animal, without destroying respiration and circulation; and, in some instances, decapitation was performed in a particular manner, and the animal survived many months*.

Convinced by this that the principle of sensation and motion did not reside in the brain, M. Gallois extended his enquiries to the medulla oblongata, and the medulla spinalis. He found that when that portion of the medulla oblongata was removed from which the eighth pair of nerves arises, respira-

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* M. Le Gallois decapitated salamanders (*lacerta salamandra*), which survived from three to five months, and seemed to die at last of inanition. But it was observed that when the head was removed from this cold-blooded animal, notwithstanding it was able to move its limbs with sufficient force to change its place, it remained stationary, because its movements had no object; or when it did move, its loco-motive efforts were unavailing, because when it made one step forward, the next was made backward. The facts ascertained by M. Gallois, elucidate the experiments of Redi, made toward the close of the 17th century. This naturalist, at the beginning of November, made a large opening in the skull of a common land tortoise (*testudo graeca*) and removed the whole substance of the brain, cleaning out the cavity with great care. The eyes of the animal instantly closed, and never afterwards opened. Being set at liberty, it continued to walk about, as well as before the brain was taken away, except that it advanced in a bogging manner, as if groping its way, which it could now no longer see. In three days the wound was covered with a new skin, and the tortoise lived, and continued all its ordinary motions, till the middle of May, nearly six months after it had been deprived of its brain. After death, a small black clot of dry blood was found in the cavity from which the brain had been taken out. This experiment was repeated on several tortoises, both land, fresh water, and the sea species: these all continued to live for a longer or a shorter time after losing their brains. Redi decapitated a land tortoise, and even after all the blood which could escape from the carotids, &c. was discharged, it continued alive for several days. Four other tortoises were decapitated, and when opened twelve days after, their hearts were found contracting and dilating, receiving and discharging the remaining blood as usual. *Observat. Intorno a gli Animali Viventi.* These facts are rendered credible by the experiments of M. Gallois, who has shewn that the motions of circulation and respiration depend on, or are connected with, portions only of the medullary substance of the brain; and that the other parts of it may be removed, and these motions still continue for weeks and months.

tion was instantly arrested; and that when that portion was preserved, life continued in cold-blooded animals, although the substance of the brain was removed, and even when they had suffered decapitation.

The efficiency of the medulla spinalis in support of the functions of respiration and circulation, was ascertained by the following experiment: a decapitated animal, which was preserved alive by artificial respiration, had an iron wire introduced the whole length of the spinal canal; when, instantaneously, the whole phenomena of life irrecoverably ceased. The following facts respecting the medulla spinalis were also experimentally ascertained: "If a rabbit (this animal was selected by M. G. for his experiments) be divided into two portions, each of these remains alive for a certain number of minutes, but if, immediately after the division, the spinal marrow be destroyed in either of these halves, life ceases instantly in it, while it continues in the other; if a portion of the spinal marrow only be destroyed, all the parts which received their nerves from the destroyed part are struck dead." Thus it is proved, that the life of the trunk depends on the medulla spinalis, and that the life of each portion is maintained by that part of the spinal marrow whence its nerves proceed.

The division of the *par vagum* destroyed life, as appeared by the experiments of M. G., by producing asphyxia, arising from one or other of the following states: 1st. by a diminution or closing of the aperture of the glottis; 2nd by infarction of the lungs with blood; 3rd. by effusion of serous fluid into the bronchia. The efficacy of the eighth pair of nerves in distributing and supporting the energies of the vital principle, has been often contemplated; but the precision of the experiments here instituted, illuminate very considerably this dark and intricate part of Physiology. To ascertain what would be the effects produced by a division of different parts of the *par vagum*, the recurrent branch of each side alone was first divided. The results were unexpected. When the experiment was performed on puppies only two days old, they died by suffocation in half an hour. As the larynx is supplied with nerves by the recurrents, it was suspected that the suffocation arose from some sudden contraction of the glottis; and this was confirmed by making an opening into the trachea, through which the air rushed into the lungs; respiration was restored, and the animal recovered. M. G. afterwards ascertained, that the division of the recurrents acted by paralyzing the aretynoid muscles, the aperture of the glottis becoming thus diminished by a relaxation of its ligaments. A singular fact respecting the influence and powers of these recurrents was likewise ascertained. The effects produced by

their division, differs much in degree by the species and age of the animal operated upon. In the dog, and especially the cat, the diminution of the aperture of the glottis by this operation is so great, as to occasion nearly instant death; but the guinea-pig and the rabbit are less speedily affected, and as they advance in age, they suffer by it very little inconvenience. The division of the *par vagum* on one side only, is seldom fatal, but it is always so, when cut on both sides. The larynx, the heart, the alimentary canal, and the lungs, are all affected by this division; the derangement of the larynx, however, depends upon the recurrent nerves, and when the difficulty of breathing becomes very great instantly upon the division of the *par vagum*, soon followed by death, as in horses, it is probable the contraction of the glottis is the principal cause.

It will be seen by this hasty sketch, that the experiments of M. Le Gallois have been not only divised with considerable ingenuity, but that much light has been thrown by their results on a very obscure and difficult part of Physiology,—the functions of the brain and nervous system. How far in any of his objects he has been anticipated by Mr. Brodie, or whether the investigations of these Physiologists may not, when viewed together, afford illustrations more decisive and satisfactory than either taken separately, may deserve future inquiry. This most interesting and most important branch of Physiology, the doctrine or theory of life, has been elucidated by Mr. Abernethy with an extraordinary and almost convincing energy. Too well known as a Physiologist and as a Surgeon to require or admit here an eulogistic display of the penetrating, comprehensive, and inductive qualities of his mind, it will be only necessary to state, that within the period allotted to this Report, in two lectures "delivered before the Royal College of Surgeons of London," this philosophical Surgeon has investigated the probability and rationality of the Hunterian THEORY of LIFE.

As illustrative of the principle Mr. Abernethy aimed to establish—THAT VITALITY IS SOMETHING SUPERADDED TO ORGANIZATION; THAT THIS SOMETHING CORRESPONDS WITH THE PHENOMENA OF ELECTRICITY; THAT WHILE IT REMAINS IT PREVENTS THE DECOMPOSITIONS TO WHICH DEAD ANIMAL AND VEGETABLE MATTER IS PRONE; AND THAT IT REGULATES THE TEMPERATURE OF THE BODIES IT INHABITS, AND IS THE CAUSE OF ALL THEIR ACTIONS*—the structure of the animal

"* All these circumstances, though deduced from an extensive contemplation of the subject, may be legitimately drawn from observations made on the egg. A living egg does not putrify under

fabric, as it exists in those fibres which constitute the muscles and nerves, is examined. The opinions respecting the structure of muscles and of muscular motion, the phenomena peculiar to living and dead muscular fibre, are stated with precision, and illustrated with characteristic ingenuity; and the system of nerves in its origin and distribution, is developed and explained. The manner in which this is executed is strongly marked by the talent and powers of the Lecturer; and the inductions are such as might be expected from a mind of the first quality.

That an immaterial something being and constituting the PRINCIPLE OF VITALITY, does actually, and in truth pervade every form of matter possessing organization, the wisest men of all ages have affirmed or admitted. What the essence of this is, philosophy must, perhaps, ever remain ignorant; but that it more resembles the subtile electric fluid, than any other known substance, quality, or property within the circle of created things, the majority of those who think will probably allow.

The reasons that induced an inquirer so acute as Mr. Abernethy to adopt this opinion, deserve to be generally known. That the irritability of life is the effect of some subtile, mobile, invisible substance, superadded to the evident structure of muscles, or other forms of vegetable and animal matter, as magnetism is to iron, and as electricity is to various substances with which it may be connected, was the opinion of Mr. Hunter. "I believe," says Mr. A. "that Mr. Hunter thought, and most persons do think, that in magnetic and electric motions, a subtile invisible substance, of a very quickly and powerfully mobile nature, puts in motion other bodies, which are evident to the senses, and are of a nature more gross and inert. To be convinced, as I am, of the probability of Mr. Hunter's theory as a cause of irritability, it is, I am aware, necessary to be as convinced as I am that electricity is what I have now supposed it to be, and that it pervades all nature. Taking it for granted that the opinions generally entertained concerning the cause of electrical motions are true, analogy would induce us to suppose, that similar motions might be produced, by similar causes, in matter organized as it is found to be in vegetable and animal systems. The phenomena of electricity and of life correspond. Electricity may be attached to, or inhere, in a wire; it may be

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circumstances that would rapidly cause that change in a dead one. The former resists a degree of cold that would freeze the latter. And when subjected to the genial warmth of incubation, the matter of it begins to be moved so as to build up the curious structure of the young animal.

suddenly dissipated, or have its powers annulled, or it may be removed by degrees or in portions, and the wire may remain less and less strongly electrified, in proportion as it is obstructed. So life inheres in vegetables and animals: it may sometimes be suddenly dissipated, or have its powers abolished, though in general it is lost by degrees, without any apparent change taking place in the structure; and in either case putrefaction begins when life terminates. The motions of electricity are characterized by their celerity and force; so are the motions of irritability. The motions of electricity are vibratory; so likewise are those of irritability.

"It is not meant, however, to be affirmed that electricity is life. There are strong analogies between electricity and magnetism; and yet I do not know that any one has been hardy enough to assert their absolute identity. I only mean to prove, that Mr. Hunter's theory is verifiable, by shewing that a subtile substance of a quickly and powerfully mobile nature seems to pervade every thing, and appears to be the life of the world; and therefore it is probable that a similar substance pervades organized bodies, and produces similar effects. If the vital principle of Mr. Hunter be not electricity, at least we have reason to believe it is of a similar nature."

Four great and important points are argued in these Lectures:—the irritability of the muscular fibre—the sensibility of the nervous fibre—the prevention of putrefaction—and the regulation of temperature. The object is to prove, that the THEORY OF LIFE suggested by Mr. Hunter, is adequate to explain the rationale of these; and so satisfied is Mr. Abernethy that this explanation is fully effected by this theory, that he concludes with the following passage, not more remarkable as evidence of the settled conviction of his own mind, than for vivid illustration, and felicity of expression.

"Thus," he says, "my mind rests at peace in thinking on the subject of life, as it has been taught by Mr. Hunter; and I am visionary enough to imagine, that if these opinions should become so established as to be generally admitted by philosophers, that if they once saw reason to believe that life was something of an invisible and active nature superadded to organization, they would then see an equal reason to believe that mind might be superadded to life, as life is to structure. They would then indeed still farther perceive how mind and matter might reciprocally operate on each other by means of an intervening substance. Thus would even physiological researches enforce the belief which I may say is natural to man; that in addition to his bodily frame, he possesses a sensitive, intelligent, and independent mind: an opinion which tends in an eminent degree to produce virtuous, honourable, and useful actions."

Materia Medica, Chemistry, Botany, and Natural History.

1. Materia Medica, and Pharmacy.—A remarkable paucity of discovery, or even of novel combination, in this department of Medical Science, has marked the present period of this Report. The most important event that has occurred on this subject, in this country, has been the appointment of Professor Brande, by the Society of Apothecaries of London, to deliver in their Hall, a course of lectures on Materia Medica and Pharmacy. The known ability of Mr. Brande as a chemist, and his necessarily extensive acquaintance with the substances of the Materia Medica, and with pharmaceutical operations, has given an interest and character to this course of lectures, which did not exist at any preceding period. The extensive scientific view which the Lecturer takes, his accuracy of detail, his dexterity in chemical operations, and his happy application and illustration of facts, so entirely qualify him for his task, that there has seldom been a more perfect accordance between the subject of the lecture, and the appropriation of talents in the Lecturer*.

An inquiry into the adulteration of medicines, by M. A. P. Favre, Professor of Pharmaceutical Chemistry at Brussels, has decidedly developed the nefarious practices of the continental Druggists. The fact of sophistication, the substitution of damaged or originally imperfect articles, the entire employment of one article for another, where there is an exterior resemblance, is so common a practice with the trading Druggist, that the public health must suffer either positively by the deleterious quality of the material, or negatively by its want of the medicinal power to which the prescriber looks for the relief of disease. Those governments, which consider the *salus populi* as a primary duty, will hardly think some attention given to the destructive practices of the trading Druggist to be superfluous. The inquiry of M. Le Favre points out many

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* From the commencement of the *Repository*, a detailed view of these lectures has been given; but from the circumstances of Mr. Brande having commenced his course prior to the establishment of this publication, the Report begins with the ninth lecture, the subject of which is the Chemical Properties of Urinary Concretions—the 10th is on the Symptoms and Treatment of Calculous Complaints—the 11th, on Digestion and Perspiration—the 12th, on Respiration—the 13th, and last, on Secretions, appears in the present Number.

nefarious facts* on the continent; we trust that the catalogue cannot be enlarged in England.

The preparation of acetate of potass has been much improved by M. Figuier, Professor of Chemistry at Montpellier.† The Memoir, in which M. Figuier details his process, was written in answer to a Prize Question published by the Pharmaceutical Society of Paris in 1808, in which it was proposed to ascertain how the acetate of potass should be prepared so as to obtain it white and perfectly neutral, without having recourse to fusion; and whether the colouring principle is derived from the acid or alkali†.

An important subject, as applicable to Pharmacy, has been agitated by M. Dubuc, an Apothecary at Rouen. The preparation and properties of alcohol, referable to the material from which it is drawn, and to the substances employed in its rectification, cannot be disregarded by the Pharmaceutist: but to ascertain, notwithstanding the experimental inquiry of M. Dubuc, a person practically acquainted with the subject, how a pure alcohol is to be obtained cheapest for general purposes, and how the degree of its purity is to be correctly detected, is yet a desideratum.

The scientific examinations of alcohol by Mr. Brande‡, although possibly not strictly pharmaceutical, have such a connexion with M. Dubuc's inquiry, as to render some notice of them here not in any degree improper.

In the Philosophical Transactions for 1811, Mr. Brande endeavoured to refute the commonly received opinion respecting the production of alcohol during the distillation of fermented liquors, by shewing that the results of the process are not affected by a variation of temperature equal to 20° of Fahrenheit; that is, that a similar quantity of alcohol is afforded by distilling wine at 180° and at 200°. He also conceived that any new arrangement of the ultimate elements of wine, which could have given rise to the formation of alcohol, would have been attended with other phenomena of decomposition; that carbon would have been deposited, or carbonic acid evolved; which in the experiments of 1811 was not the case. Upon

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* *Vid. Repository, Vol. I. p.* 130. Mixing white oxyd of arsenic with oxymuriate of mercury, and the grey oxyd of lead with powdered scammony, are common practices of the continental Druggists.

† *Vid. Repository, Vol. I. p.* 222, where an important addition to M. Fiquier's Memoir will be found.

‡ Additional remarks on the state in which alcohol exists in fermented liquors. Phil. Trans. 1813, p. 8[illegible]

these grounds he ventured to conclude, that the relative quantity of alcohol in wines might be estimated by submitting them to a careful distillation, and by ascertaining the specific gravity of the distilled liquor with the precautions then described.

This conclusion has been objected to, on the ground that the lowest temperature at which the distillation was performed was sufficient for the formation of alcohol from the elements existing in wine; but that it could not be conceived how this should happen without some of the other changes, such as the deposition of carbon, or the evolution of carbonic acid.

It is stated by Mr. Brande, in his paper of 1811, that the separation of alcohol from wine, by the addition of subcarbonate of potass, is prevented by the combination of the alkaline salt with the colouring extractive, and the acid contained in the liquor; and some unsuccessful attempts to separate these substances by distillation are noticed. In prosecuting the inquiry, Mr. Brande has surmounted these difficulties, and has been enabled to shew that *alcohol may be separated from wine without the intervention of heat*; and that the proportion afforded is equal to that yielded by distillation.

When the acetate*, or subacetate†, or the subnitrate of tin‡, are added to wine, a dense insoluble precipitate is quickly formed, consisting of a combination of the metallic oxide with the acid and colouring extractive matter of the wine; and when this is separated by filtration, a colourless fluid is obtained, containing alcohol, water, and a portion of the acid of the metallic salt, provided the latter has not been added in excess, in which case a part remains undecomposed.

The acetate of lead, and the subnitrate of tin, produce the desired effect of separating the colouring and acid matters, in the greater number of instances; but they are less rapid and perfect in their action, and not so generally applicable as the subacetate of lead, the substance commonly employed by Mr. Brande.

A suite of experiments were instituted by Mr. Brande, to

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* Sugar of lead.

† Formed by boiling two parts of sugar of lead with one of finely powdered litharge in six parts of water. This solution should be preserved in well-closed phials, as it is rapidly decomposed by attracting carbonic acid from the atmosphere. Even while hot, a portion of carbonate of lead is formed in it.

‡ Prepared by dissolving protoxide of tin in cold dilute nitric acid.

ascertain the fact of the possibility of separating alcohol from wine without heat. A mixture of alcohol and water, port wine, madeira, sherry, claret, and vin de grave, were submitted to the process just noticed, and the results were so decisive, as amply to prove, by experimental evidence, *that no alcohol is formed during the distillation of wines, and that the whole quantity found after distillation, pre-existed in the fermented liquors**. But the conclusions which Mr. Brande made from his experiments, have not been so fully admitted as the precision of those experiments seemed to warrant. M. Gay Lussac †, with a view to determine with more clearness, as he says, than had hitherto been done, the true epoch at which alcohol is formed in wine, whether during distillation, as had been supposed from the experiments of Fabrioni‡, or at the time of fermentation, according to Mr. Brande, has presented a memoir to the French Institute, in which he believes he has proved that alcohol is not formed during fermentation.

Mr. Brande, who, in a former volume of the Philosophical Transactions, illustrated the effects of magnesia, in preventing an increased formation of uric acid, has now made some additional observations on that subject; to which he has added remarks on the influence of acids upon the composition of urine. The effects of magnesia and acids upon calculous complaints, whether in the form of red sand *(uric acid)*, or white sand *(phosphates)*, are determined by the relation of several cases of both forms of the disease; upon which the following conclusions are founded:

1.—That where alkalies fail to relieve the increased secretion of uric acid, and to prevent its forming calculi in the kidneys, and where they disagree with the stomach, magnesia is generally effectual, and that it may be persevered in for a con-

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* In the progress of those experiments it was ascertained, that distilled port wine tastes stronger, and is more heating, than the wine in its original state, and that these qualities are impaired, and the wine reduced nearly to its original flavour, by the addition of its acid and extractive matter. With claret, and some other wines, containing less alcohol and more acid than port, these circumstances are more readily perceived. If the residuum afforded by distilling one hundred parts of port wine be added to twenty-two parts of alcohol and eighty-eight of water, (in a state of combination,) the mixture is precisely analogous in its intoxicating effects to port wine of an equal strength.

† Annales de Chimie, tome lxxxvi.

‡ Annales de Chimie, tome xxx. p. 220.

siderable time without inconvenience, where the tendency to form uric acid remains.

2.—When the alkalies, or magnesia, are improperly continued, after having relieved the symptoms connected with the formation of the red sand, or uric acid, the urine acquires a tendency to deposit white sand, consisting of ammoniaco-magnesian phosphate, and phosphate of lime.

3.—The mineral acids (muriatic, sulphuric, and nitric) diminish, or entirely prevent the deposition of the phosphates; but are apt to induce a return of the red gravel.

4.—That vegetable acids, especially the citric and tartaric, are less liable to produce the last mentioned effects, even when taken in large doses for a long time; and that carbonic acid is particularly useful in cases where the irritable state of the bladder prevents the exhibition of other remedies.

II.—Chemistry.—By an extension of this branch of natural science, it has been made, of late years, to comprehend an analysis of animal solids and fluids, under the term *Animal Chemistry.* But whether it be owing to the nature of the materials operated upon, to some imperfection in the operation or in the art itself, certain it is, that animal chemistry has not yet attained that degree of perfection which in other branches of the science amounts to something like demonstration; and, to those who understand the subject, its results often take the character of self-evident propositions. Among those who have, in this country, chiefly directed Chemistry to the examination of the materials of which animal bodies are composed, may be reckoned Dr. Bostock of Liverpool; who, whether he be considered as an experimenter, or as a teacher of the science, equally commands respect. Under both of these characters he has lately appeared, in observations on the nature and analysis of animal fluids, and by an analysis of the bones of the spine in *mollities ossium**.

This ingenious Chemist has arranged what he denominates the primary animal fluids, in three classes:—*the albuminous—the mucous*—and *the particled.* The character of the 1st *Class*, albuminous fluids, is constituted by the individual fluids of it being *adhesive, miscible with water in any proportion*, and by *being coagulable by heat.* The albuminous fluids form the chief part of the solid contents of the serum of the blood, of the white of the egg, and of fluids which are discharged from what are called serous membranes, not by secretion, but by a process resembling transudation. The 2nd *Class* contains the mucous fluids, which are defined to be *viscid and tenacious, capable of*

* Vide Medico-Chirurgical Society's Transactions, vol. iv.

being drawn into threads, but not of being poured in the form of drops; containing a great quantity of water, but not readily miscible with any additional quantity. To this Class belong saliva, the nasal fluid, the mucous found in the stomach, and the fluid occasionally discharged from the bladder and the canal of the intestines. The second class differs from the first, in being chiefly composed of a material which is not exactly similar to any thing found in the blood: and on this account, the fluids of the second class may be considered as the product of secretion rather than of transudation. Another circumstance of considerable pathological importance is, that while the albuminous fluids of the first class seem to be confined in closed cavities, the mucous fluids of the second are poured into passages that communicate with the external surface of the body. The peculiar characteristic of the 3d *Class,* the particled fluids, is, *that they contain particles visible to the naked eye.* The particled fluids are discharged from tumours of the muscular and glandular parts; and the particles are composed of a substance resembling spermaceti, both in its physical and chemical properties, and exhibiting, like that substance, a considerable lustre. Of the fluids of these three classes, Dr. Bostock has examined and analysed many species: and of the albuminous fluids he has given a tabular synopsis*. The public is likewise indebted to him for practical directions on the method of analysing animal fluids†.

A course of investigations to improve the pathology of pulmonary consumption, upon which Dr. George Pearson has been very long engaged, led him to examine the colouring matter of the black bronchial glands and black spots of the human lungs.

A set of lymphatic glands, placed externally within the cellular membrane, near the bifurcation of the trachea, and internally near the large branches of the bronchi, have a black or dark blue colour. At the age of twenty the lungs have a mottled or marbled appearance, from black and blue spots, lines, and points, dispersed immediately under the transparent pleura; and these marks become dark coloured in a ratio agreeing with age. From sixty to seventy years of age the lungs appear almost uniformly black, from the number, congeries, and coalescence of these maculæ, points, and lines. Throughout the whole interior substance of the lungs the dark

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* Medico-Chirurgical Transactions, vol. iv. p. 73.

† In a future Number of the *Repository* we shall present our readers with Dr. Bostock's directions on this subject.

colour is seen, in a great measure, to correspond with the external appearance.

From a variety of experiments, both on the black glands, and on the black matter of those glands separately collected, Dr. Pearson decides that this black matter is *animal charcoal*, in an uncombined state, or not existing as a constituent ingredient of organized animal solids or fluids*. In the present state of knowledge on this neglected subject nothing has been positively ascertained, even as to the probable morbid effects produced by this collection of charcoal in the vessels and glands of the lungs; though it is hardly possible to deny that some check in the functions of the respiratory organs may be induced by this accumulation of extraneous matter†.

Although the more general application of the Science of Chemistry to the Arts, to Philosophy, and to explain the actions of inanimate matter, has not been deficient altogether in interest during the preceding six months; yet, as less connected with medical research, it will demand but a more epitomized notice in this Report.

Experiments on the action of the sun's rays upon phosphorus, and of the existence of carbon in that substance, by M. Vogel—the discovery of a new substance, by M. Courtois, to which the appellation of *Iodine* has been given—observations on the pretended formation of oxalic acid by a mixture of alcohol and sulphuric acid, by M. Vogel—experiments on the alcohol of sulphur, and sulphuret of carbon, by Dr. Berzelius—observations on a new detonating substance, by Sir Humphry Davy—experiments on the production of cold by the evaporation of sulphuret of carbon, by Dr. Marcet—an attempt to determine the definite and simple proportions, in which the constituent parts of unorganic substances are united with each other, by Dr. Berzelius—on the quantities of heat developed in the condensation of the vapour of water, and in that of alcohol—and on the capacity for heat, or calorific powers of various liquids, by Count Rumford—deserve particular regard, and would be fully gone into but for the necessity of appropriating the pages

* Philosophical Transactions, 1813.

† The *Examen du Méconium des Enfans, et de celui des Agneaux*, by M. Bouillon-Lagrange, would demand a particular notice here, as an interesting inquiry in Animal Chemistry, had not a very full account of it been given in the 1st volume of the *Repository*, page 300; and more especially, as M. Lagrange has not yet concluded his paper on the subject, from which circumstance we shall, probably, have occasion to take it up again in the next Report.

of this Report to subjects more directly connected with Medical Science.

III.—BOTANY.—The satisfaction of observing the progress of botanical discovery, and the gradual developement of the immensity of vegetable life, is commonly unaccompanied with regrets that attend many objects of human study. The botanist proceeds in silence and solitude. The rights of man are not invaded, nor the social compact disturbed by his labours; to himself alone does personal inconvenience arise, and the privations he often sustains are only to be equalled by the mental ardour which impels him. The botanical travels of Mr. Frederick Pursh over the continent of North America remarkably exemplify this. The zeal and indefatigable industry of this gentleman, his disregard of personal convenience and comfort in his journeys, which were in general performed on foot, with no other companions than his dog and his gun; connected with his patient examination of all the best herbariums and the writings of every preceding author on this subject, have enabled him to produce an American Flora of great interest, and in which extensive additions are made to the catalogue of plants of that quarter of the globe. In this work, intitled *Flora Americæ Septentrionalis*, the following additions are made to the researches of his predecessors—a new species of veronica, two monardas, a salvia, two irises, three cyperi, two scirpi, one of which is viviparous, one milium, an agrestis, two species of panicum, one aira, an arundo, a plantago, a swertia, two species of galium with hirsute fruit, one of diodia, one of nicotiana, from the dried flowers of which the most delicate tobacco is prepared by the Indians; one of euonymus, two of viola, one of heuchera, two of drosera, two of prinos, a very beautiful and singular species of conostylis, a peplis, a chæmærops, an acer, an agrimonia, a clematis, a ranunculus, six species of sagittaria, two of psoralea, a lotus, a chondrilla, two of prenanthes, one of which he has named P. serpentaria, from its being regarded as a specific for the bite of the rattlesnake; an arnica, a cineraria, a senecio, two asters, an orchis, an euphorbia, and five species of salix.

If the facts in botanical discovery, presented to the public from January to June 1814, are but few in number, the additions made to the previously known species of plants by Mr. Pursh are of sufficient importance to give considerable interest to this department of science*.

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* In the last volume of the Memoirs of the Academy of Petersburg, *Kolhreuter* has published several interesting observations on the nature of the *pollen*, which he has proved to have a dif-

IV.—Natural History.—In the history of the earth and animated nature, there are two subjects of inquiry, connecting with them extraordinary interest,—the natural history of the human race—and the strata of the earth, as regards its primary condition, its various revolutions both in its own structure and in its inhabitants, especially as exemplified by fossil organic remains. On both of these, the period allotted to this Report presents investigations deserving peculiar regard.

To that mysterious and important subject—*fossil organic remains*, the labours of M. Cuvier are known to have been directed with such remarkable success for the ascertaining of facts, that he has demonstrated and classed seventy-eight species of viviparous and oviparous quadrupeds, the fossilized bones only of which now remain. Of this number forty-nine species were before entirely unknown to naturalists. In the prosecution of his inquiries, materials to such an extent and of such a quality were collected, as have enabled this sagacious naturalist to produce an Essay on the Theory of the Earth*, involving points of great importance, and executed in a manner highly interesting. From a very extensive view of facts, M. Cuvier's conclusions are—" that the surface of the earth has several times been covered with the sea—that several successive races of inhabitants have been destroyed—and that all these revolutions took place before the continents which we at present know were inhabited by the human race†." From many circumstances, M. Cuvier determines " that the present human race cannot be of older date than the period assigned

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ferent figure in different classes of plants. As it is our intention to enrich our *Journal* with a translation of this paper, we shall not here anticipate the gratification our readers will derive from it.

* Essay on the Theory of the Earth, translated from the French of M. Cuvier, by Robert Kerr, F.R.S. with Mineralogical Notes, and an account of Cuvier's Geological Discoveries by Prof. Jameson, 8vo. Edinburgh.

† That the human species did not exist at the time of these revolutions in our continents, M. Cuvier thinks evident, from the well-known fact that human fossil remains are no where to be found, though they are as well fitted for a lengthened existence as the bones of quadrupeds, birds, and fishes, which are found in abundance. The well-known fact of the non-existence of human fossil bones, seems, however, to be in some measure shaken, by the relation of a human fossilized skeleton having been found in Guadaloupe, and lately deposited in the British Museum. *Vide Repository, vol. i. p. 346.*

in the Old Testament to the deluge; that human history and establishments must have originated at that period; and that the traditions of the Egyptians, Assyrians, Chinese, and Indians, point uniformly to a deluge about that period, which must have swept almost the whole of the human race from the earth, and thus destroyed all civil institutions, monuments, and learning.

To the general views and logical deductions of this learned foreigner, the account of *organic remains* found at Brentford, though less magnificent, may be added as not less impressive. The late Mr. William Kirby Trimmer, whose ardour in the pursuit of this subject was not unknown, collected in the neighbourhood of Brentford a great variety of fossilized bones of quadrupeds. These were discovered in two fields under the following circumstances*.

In the first field, about half a mile north from Kew Bridge, and twenty-five feet above the Thames at low water, the strata lie in the following order and thickness, beginning at the surface:

1.—Sandy loam, six to seven feet.

2.—Ditto gravel, a few inches.

3.—Loam, slightly calcareous, one to five feet.

4.—Peat in small detached particles, a few inches.

5.—Gravel, containing water, thickest under the peat, two to ten feet.

6.—London clay, two hundred feet.

The first stratum contained no animal remains; the second contained snail shells, river shells, and a few bones of land animals, so mutilated, that the class to which they belonged could not be ascertained. The third contained the horns and bones of the ox; the horns, bones, and teeth of the deer; besides snail shells, and shells of river fish. The fourth contained the teeth and horns of both the African and Asiatic elephant; the teeth of the hippopotamus; and the bones, horns, and teeth of the ox. In the clay, the animal remains were all marine; and there were also some specimens of fruit and petrified wood. The other fossils were nautili, oysters, pinna marina, crabs, teeth and bones of fish, and a great variety of small shells.

The second field, about a mile west from the first, and a quarter of a mile from the river Brent, is forty feet above the Thames, at low water. The disposition of its strata, beginning at the surface, is

1.—Sandy loam, eight to 9 feet thick.

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* Phil. Trans. 1813. p. 131.

2.—Sand, coarser towards the lower part, three to eight feet,
3.—Sandy loam, highly calcareous, one inch to 9 feet.
4.—Gravel, containing water, unknown.
5.—London clay, unknown.

The first stratum contains no animal remains. In the second, but always within two feet of the third, have been found bones and teeth of the hippopotamus and the elephant; the horns, bones, and teeth of several species of deer and of the ox, and the shells of river fish. The third contains the horns, bones, and teeth of the deer and the ox, together with the shells of snails and of river fish. The tusk of an elephant, found in the first, measured, as it lay on the ground, nine feet three inches; but it broke into smaller pieces on an attempt made to move it. The remains of hippopotami are so abundant, that, in turning over an area of one hundred and twenty feet in the second field, part of six tusks of this animal were found.

There are, probably, but few minds insensible to impressions arising from the discovery of fossil organic remains of animals, especially of those which belong to genera long since swept from the earth, and of others, the species of which no longer exist in those places, or even in those climates where their remains are found. The elephant, the hippopotamus, and the crocodile, are no longer inhabitants of Britain; but their fossil remains are often found.

As a speculation without any ulterior object, the facts in this branch of natural history act on the imagination in no common degree; but when arranged, as is seen in Cuvier and in Parkinson, they assume a higher character, induce reflections on the infinity of nature, and command reverence for the great First Cause. They are likewise not without their use, as tending to elucidate science, and extend natural history. "It would certainly be exceedingly satisfactory," says M. Cuvier, "to have the fossil organic productions arranged in chronological order, in the same manner as we now have the principal mineral substances. By this the science of organization itself would be improved; the developements of animal life; the succession of its forms; the precise determination of those which have been first called into existence; the simultaneous production of certain species, and their gradual extinction; — all these would, perhaps, instruct us fully as much in the essence of organization, as all the experiments that we shall ever be able to make upon living animals: and man, to whom only a short space of time is allotted upon this earth, would have the glory of restoring the history of thousands of ages which preceded the existence of his race, and of thousands of animals that never were contemporaneous with his species."

In the natural history of MAN, there seems no fact more remarkable, than that there has not yet been found any fossilized human bones. For if this fact has, in any degree, been impugned, by the circumstances of a human skeleton, in a fossil state, being found in the island of Guadaloupe, it goes no further than a single exception to a very general principle.

But should the natural history of *man* appear defective in this particular, still there remains attached to his actual state, and connected with the known historical periods of his existence, so great a multitude of facts, and so much variety in his mental and physical conditions, as to render the study of the human race, in all its bearings, perhaps, the most gratifying employment of the human mind.

Upon the physical history of man, such numerous and elaborate volumes have been written, that hardly, as it seemed, did a fact remain to be discovered, or a principle to be developed: but the *Researches** of Dr. Prichard shew that a subject so fertile of materials is not yet exhausted. The leading point in this discussion has usually been to prove, whether the whole of the human race, as now seen dispersed and scattered over the continents and islands of the earth, is descended from a single stock, or consisted originally of several species. Dr. Prichard maintains that all mankind constitute but one race, or proceed from a single family: and in the support of his opinion, he takes a wide view of all the varieties into which MAN is separated, with a distinction and marking so determined as to have induced some to argue that many or several species of men existed *ab origine*.

In proceeding to "the height of this great argument," it is essential that the human race, from the equator to the poles, should pass in review before the inquirer; that the diversities in colour and form should be minutely observed; that the organization of the skin and the hair should be investigated with anatomical precision; and the form of the cranium, as characterizing distinct races, or as influencing the mental faculty, should be ascertained. To this portion of the inquiry, and to the causes which have produced these diversities, Dr. Prichard had added a physical history of the most remarkable races of men, in which is combined a view of the personal forms, political institutions, mythological systems and opinions, antiquity, habits and manners of the Hindu, Egyptian, Chinese, Syrian, Assyrian, and Persian; the Sarmatic tribes; the Cim-

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* Researches into the Physical History of Man, 8vo. Lond. pp. 558.

merii, Geta, Goths, and Celts; the Pelasgian and the Mongolian races; the American *Aborigines;* the Negroes of Africa; the people of New Guinea, New Holland, New Caledonia, and the Papua Islands; the inhabitants of New Zealand; the Friendly Society and Sandwich Islands; the Ladrones, Caroline, Beauman, Easter, and Navigator's Islands; the Malays, and the antient people of the Indian Islands. The extent and variety of interesting facts, and useful information, comprehended in this elaborate volume, scarcely do justice to this important subject.

The history of animal life, lower in the scale of nature, has received some illustration during the preceding six months. A caterpillar of the family *Mineuses,* under the specific denomination of hammock-caterpillar, has had its singular industry and peculiar habits illustrated by M. Huber, of Geneva. The drones of the *Apis sylvarum* of Kirby have been examined, relative to their peculiar instincts, by M. de la Bellardiere, and a singular fact seems to have been ascertained, if it be not one of those plays of the imagination into which naturalists too often fall, by transferring the privilege of human intellect to the lower orders of creation*. The anatomy of insects has been considerably elucidated by M. Marcel de Serres, who has made a great number of experiments on the largest insects of the South of France. The anatomy of the lumbricus has been improved by M. Montigre, and some facts respecting its physiology more decidedly ascertained. A new species of moluscus (*Cestum Veneris*) has been discovered and described by M. Lusueur.

For a long period, perhaps always to the present time, there has been much confusion on the subject of the spiral tusk of the Nar-whale. The best informed naturalists have adopted the opinion, that the male has but one tusk, and the synonym *monodon monoceron* has been given to it by Linnæus. Sir Everard Home † has shewn that the Linnæan synonym is not correct; and has settled a difficulty in the history of this inhabitant of the great Northern Ocean, by ascertaining that the male has actually two tusks, but that the left appears, commonly, long before the right. It is by minute and apparently trivial circumstances being ascertained with precision, that the volume of nature is to be unequivocally comprehended.

A new variety of sheep has lately appeared in the State of Massachusetts, (America); it has been called the otter-head, from some real or fancied resemblance it has to that animal. The origin of this variety has not been ascertained; but fancy

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* *Repository,* vol. i. p. 405. † Phil. Trans. 1816, p. 126.

has attributed it to some unnatural intercourse, or, with less probability, to fright during utero-gestation. Dr. Shattuck, of Boston, examined, anatomically, a sheep of this breed, and found the most obvious difference in its skeleton from that of the common sheep, to consist in the greater looseness of the articulations, and the smaller size of the bones; but more especially in the crookedness of the fore legs, which appear like elbows when it is walking. A want of firmness was also observed in the texture of the subscapularian muscles. In the history of this sheep*, there are some facts relative to continuance of resemblance, as transmitted from parents to their offspring, not unworthy of notice. When both parents are of the *ancon* breed, (so denominated from the elbow-like appearance of the fore legs,) the progeny inherits their peculiar appearance and properties. When the ancon ewe is impregnated by a common ram, the *increase resembles wholly either the ewe or the ram; the essential distinguishing marks of the two are never blended. In cases of twins, one has resembled the ewe, and the other the ram.* In the obscurity of the theories of generation, it is not easy to estimate the value of this fact.

THEORY AND PRACTICE OF MEDICINE, SURGERY, AND MIDWIFRY.

I. Theory and Practice of Medicine. — The most prominent fact in the history of the theory and practice of the Medical Art, which has occurred within the period allotted to this Report, is the publication of a fourth volume of "*Transactions*," by the College of Physicians in London. Placed at the head of the Medical Profession in the British empire, the Royal College of Physicians is looked up to by that Profession, not only for the protection of its rights, and the redress of its wrongs, but for such additions to the science of medicine, as would reflect lustre on that learned Body, contribute to the improvement of the Profession, and conduce to the benefit of the Public. Of the materials composing this volume of "Medical Transactions," so ample an analysis has been given in a preceding number of this Journal†, that it would be superfluous again to enter on the subject.

The elaborate *Nosologiæ Methodicæ* of Swediaur, although published in 1812 at Paris, has so lately been brought to this country, that it must be considered as one of the novelties of the present period. Of its value to the science of me-

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* Phil. Trans. 1813. † *Repository*, vol. i. p. 48.

dicine, a widely different estimate will be made by those who are friendly to nosological arrangement, and by those who think that arbitrary distributions of morbid effects, under artificial classes, orders, and genera, often retard a true observance of nature, and supercede an attentive notation of facts. Prior to the publication of this work, the nomenclature of nosology had been esteemed sufficiently intricate and puzzling; and practitioners generally refused to encumber their memories with the terms in the systems of Sauvages, Linnæus, Sagar, Vogel, and Cullen, no two of which agreed in the import and value of the Greek derivatives which they employed. This objection perhaps applies to the nomenclature of Swediaur, though it disagrees in many particulars with that of its predecessors*.

Pertussis and *Cynanche Trachealis* have each undergone an investigation calculated to make them better understood, and consequently treated with more success. The researches of Dr. Watt, of Glasgow, on Chin-cough, published about the close of 1813†, illustrate the nature, progress, and treatment of that disease, in a manner nowise discreditable to the author of the Treatise on Diabetes, so well known to the profession for the originality of its opinions, and the *modus curandi* it suggested. To *Cynanche Trachealis* the views of the French practitioners have been particularly directed, by the government of France having offered a premium for the best memoir on that subject. The decision on the merit of the transmitted memoirs was delegated to a special committee, composed of Messrs. Desarts, Portal, Hallé, Pinel, Corvisart, &c. The candidates were numerous, and many of them of great respectability. One of the results of this inquiry was the (asserted) discovery of a specific for Croup and Hooping-cough ‡. But of more importance in the science of medicine, than the discovery of specifics,

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* Our readers will find a minute analysis of the arrangement and nomenclature of Dr. Swediaur's learned, ingenious, and, possibly, useful Nosologia, in the first volume of the *Repository*, pp. 185, 233.

† *Repository*, vol. i. p. 311.

‡ It will scarcely be admitted that sulphuret of potass, given in doses of a few grains, morning and evening, will prove specific in these formidable diseases, one of rapid and often fatal progress, and the other, though less rapid, always distressing, and not unfrequently serious. In *cynanche trachealis*, where the most prompt and decisive treatment is instantly demanded, few practitioners of this country will be found trifling with sulphuret of potass.

is the demonstration of the utility of an early reduction of the inflammatory diathesis by bleeding, and other evacuants. Under this treatment, the mortality of *Cynanche Trachealis* has been reduced in London to about one in twenty*.

That formidable disease, *Hydrocephalus Internus*, has received a considerable elucidation of its cause by Mr. Thomson, who has directed the attention of the practitioner to the condition of the abdominal viscera, and to the value of purgative medicines in this disease†. In the treatise on the same disorder, by Dr. James Carmichael Smyth, under the term *Hydrencephalus*, as more exactly and critically expressing water in the brain, it is remarkable that the author should have asserted, "That neither the brain itself, nor its membranes, in any case of *Hydrencephalus*, that ever yet has been examined, should have any appearance of inflammation, or of the usual effects of its having taken place." Whether inflammation ever exists as a cause of effusion of serum into the ventricles of the brain, or whether, as Dr. Smyth asserts, that effusion be always the consequence of debility, is a question of great practical importance; because the method of cure founded on either opinion, would, supposing the opinion to be erroneous, be highly injurious to the patient. If the non-inflammationist uses his stimulants and his tonics when inflammation does actually exist, the increase of disease will be direct and unequivocal. If the inflammationist employ his evacuants and his antiphlogistic process when debility locally exists in the exhalents of the part, and in the system generally, the increase of mischief will be equally unequivocal. But the reasonable probability is, that both methods may be right at different stages of the disease. The debility in the exhalents may have been the result of inflammation, and the effusion one of the terminations of inflammatory action. Evacuants early employed would, on this principle, have been the proper remedy; but when inflammation has terminated in effusion, the substitution of stimulants and tonics, and every means that promote absorption, and can restore the tone of the exhalents, will be proper. The difficulty is in ascertaining the precise time at which these different modes of treatment should be employed.

A very considerable portion of the fourth volume of Dr. Ferriar's Medical Histories and Reflections‡, as treating on

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* *Repository*, vol. i. p. 361.

† Ibid. vol. i. p. 16.

‡ Medical Histories and Reflections, vol. 4. By John Ferriar, M. D. Senior Physician to the Manchester Infirmary, Dispensary, Lunatic Hospital, and Asylum. 8vo. London, 1813.

effusion of serous fluid into the cavities of the human body, is not very distantly connected with this inquiry. As a cure for dropsies, Dr. Ferriar places most dependance on one of the oldest articles of the Materia Medica. Extract of *Elaterium*, unquestionably a powerful hydragogue, is the favourite remedy of this physician, and his predilection is supported and enforced by cases and observations. In hydrothorax and in ascites, the accompanying dyspnœa has been astonishingly relieved by its employment. The sensible effects of *Elaterium* are severe and constant nausea, frequent watery stools, and in considerable doses, vomitting; but as it does not uniformly increase the flow of urine, Dr. Ferriar combines it with various diuretics.

Diabetes Mellitus has been treated by this physician with cinchona and uva ursi, each half a drachm, and opium half a grain, for a dose four times a day in lime water, directing the patient to live entirely on animal food; but the treatment of this disease entirely by opium, and the success of this remedy, as related by Dr. Warren*, bears much more the appearance of a discovery. In one of the two cases of *Diabetes Mellitus*, related by Dr. Warren, opium was given in very considerable quantity, to the extent of forty grains in the twenty-four hours. During its employment, there was no evidence of advantage arising from other medicines, or from a diet of animal food; but it was fully determined, that opium, in large doses, is capable of exercising "considerable restraint upon the secretion of the kidneys, and the sweetness of the urine in *Diabetes Mellitus*."

In the case of Hydrophobia related by Dr. Satterly, in the Medical Transactions, Vol. IV. *vomitting* was a prominent feature of the disease; and the fact should not be lost, that during the continuance of this reversed action of the stomach, the hydrophobic symptoms were materially lessened; and the quantity of fluid then swallowed was fully adequate to the support of the patient. A morbid sensibility to cold was also remarkable in this case, as was its continuance for *seven days* after the commencement of the hydrophobic symptoms. Some very whimsical notions on this disease have been promulgated by M. Lalonette in an *Essai sur la Rage*, in which it is affirmed, that the *Materies Morborum* of rabies canina is a depravation of the matter of perspiration; and in perfect coincidence with this notion, is the mode of cure proposed. To extract the morbid material which is said to have accumulated beneath the cutis, it is adviced to encircle the legs, the thighs, the breast, and the neck, with bands of blistering

* Medical Transactions, vol. IV. p. 188.

plaister. The quarto volume on Hydrophobia, its prevention and cure, by Dr. Mosely, will not suffer by a comparison with M. Lalonette.

The progressive advance of Vaccination, as founded on its real properties, is peculiarly satisfactory; and if in this country, where its powers were first ascertained, partial objections to its employment still exist, its almost universal diffusion over other nations is a counterpoise to this prejudice. From the shores of the Tigris and the Euphrates, from Mesopotamia and Armenia, intelligence has been received, that vaccination has been, or is about to be adopted. Many efforts had been made some years since to introduce this practice among the population of Bagdad, but without success. At length, JEAN DE MURAT, a Turk of Constantinople, and a resident merchant of Bagdad, by first vaccinating his own child, had succeeded so far in 1813, as to be permitted to operate on ninety-six children of that town. The practice has likewise been further promoted by *Murat* having dispatched missionaries to Moussoul and Ecrivan, for the purpose of disseminating vaccination. The report of the central committee of vaccination at Paris is also positive evidence in favour of the practice. The progress of vaccination, as appears from this report, is very rapid in France. In the year

1805,	125,992	vaccinations took place in	42 departments,
1806,	149,339	ditto	65
1807,	224,259	ditto	70
1808,	368,405	ditto	83
1809,	269,367	ditto	73
1810,	364,016	ditto	79
1811,	712,151	ditto	125

It appears, that 1,400,000 children are born annually in France; that, before the introduction of vaccination, of these 1,000,000 passed through the small-pox within the year; and that 150,000 of them perished. In 1811, there were only 70,000 cases of small-pox, and the deaths amounted to 8,500, occasioning a preservation of above 140,000 lives annually. There is also sufficient testimony produced in this Report, to shew that vaccination cures some chronic disorders of the lymphatic system and of the skin. It is likewise a singular fact, and some cases in elucidation are given in the Report, that the paroxysms of hooping-cough are exceedingly lessened in frequency and violence by the appearance of the vaccine vesicle*.

* Though prejudices do still exist in this country against vaccination, yet by the steady exertion of judicious men, and the proofs that every day arise of the security it affords against small-pox,

II. Surgery.—A History of the Diseases of the Absorbent System is one of the few publications which have within the last six months afforded materials for a Report on the Progress of Surgery. Mr. Goodlad, a practitioner at Bury, in Lancashire, in an Essay* on the diseases of the vessels and glands of this system, has pointed out with considerable precision the various forms of morbid alterations to which it is subjected; with the curative methods appropriated to each. Inflammation of the absorbent vessels, their varicous, ruptured, wounded, and obstructed state, are treated of; and the inflammation and ossification of the absorbent glands, with the effects produced on them by wounds, irritating ulcers, and the absorption of morbific matter. The history and treatment of scrofulous absorbent glands has occupied a considerable portion of Mr. Goodlad's attention, and the theory of this disease is examined with critical precision. There are two facts in Mr. Goodlad's details of opinions, which have hypothetically existed on the nature, property, and actions of the scrofulous virus, deserving particular attention: they are the influence of the atmosphere upon the scrofulous diathesis, and the more *frequent occurrence of that disease in some of the English counties than in others.*

"It is a fact very capable of demonstration that a greater proportion of scrofulous patients seek relief from the Manchester Infirmary, than from any other hospital in the kingdom. Out of seven or eight thousand patients who are annually admitted, almost one half of the surgical cases are scrofulous, whilst in the Nottingham Infirmary there was only one scrofulous patient in sixty-three, on an average of two years. A difference equally striking occurs at Liverpool. In a report of upwards of 15,000 patients, who were admitted in 1801, only 142 are marked as scrofulous by the learned and accurate reporter, Dr. Bostock." In the adjoining hospitals of Birmingham, Sheffield, Derby, and Leeds, Mr. Goodlad believes this disease will be found a little more frequent than at Nottingham. In the history of the causes producing diseases, especially of the chronic fever, there is a reasonable probability

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either as a preservative altogether, or as certainly mitigating the violence of every case of variola subsequent to it, these prejudices are fast wearing away. The excellence of the report by Mr. Rigby of Norwich on this subject will induce us to insert it in a future Number.

* A Practical Essay on the Diseases of the Vessels and Glands of the Absorbent System; being the substance of observations which obtained the Prize for 1812, offered by the Royal College of Surgeons in London. 8vo. London, 1814. Longman.

that much may be developed by attending to local peculiarities. That scrofula occurs in a proportion to other diseases infinitely greater at Manchester than in the neighbouring counties, must not be doubted as a fact; but why this happens is only to be determined by a minute observation of the medico-topographical peculiarities of that place, and the habits of life of its population; compared, particularly, with those of Nottingham, where scrofula appears in so much smaller a proportion*. Mr. Goodlad is disposed to attribute the extraordinary prevalence of the strumous diathesis at Manchester to the great humidity of its atmosphere.

In the treatment of gangrene, the surgeon seems hitherto to have much neglected to distinguish the forms or species of that alarming condition of the system. The principle which has influenced surgery to determine on not amputating while gangrene in a limb was progressive, but to wait either for the spontaneous separation or for that procured by art, of the living from the dead parts, has been surely much too generally admitted. The celebrated French surgeon, M. Larrey, in a memoir on this subject†, has certainly made a proper distinction, and shewn not only that amputation may be performed during the progression of gangrene without hazard; but, on the contrary, that such operation is generally the only means left to preserve the patient's life.

The respectable and experienced oculist, Mr. Ware, by observations relative to the near and distant sight of different persons‡, and by the fifth edition of his work on ophthalmy, psorophthalmy, &c. with additional remarks on the purulent ophthalmia, which has lately been epidemical in this country, has shewn with what readiness his talents are still exerted in the cause of science. But it will seldom happen to this Report to record an instance of success so remarkable in operations for diseases of the eye, as in those performed by Sir William

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* The advantages that would arise to the Medical Art, by extensive and correct medico-topographical histories, can hardly be more strikingly exemplified than in the instance here given. The efforts that the *London Medical Repository* has, from time to time employed to induce the proper feeling on this subject among the faculty of the kingdom, must be strengthened by the statements of Mr. Goodlad, who has gone much further into the subject than the space allotted to this Report will permit us to enumerate.

† *Repository*, vol. i. p. 469.

‡ Phil. Trans. for 1813.

Adams on the blind seamen in Greenwich Hospital*. It is matter of public gratulation, that while individual oculists are manifesting their extraordinary dexterity and skill as operators, the whole practice for diseases of the eye is becoming less empirical, by falling into the hands of the regular surgeon.

Some remarkable facts respecting the laws of the syphilitic virus have been ascertained by Mr. Ferguson, Inspector-General of Hospitals to the Portuguese army. In the British army, during the time it has been acting in Portugal, more men, it is admitted, have been mutilated by the venereal disease, than the registers of all the hospitals in England could produce for the last century. That the venereal ulceration has not only been more intractable to the operation of mercury in these instances than under similar circumstances at home, but the constitution, while strongly under the influence of this remedy, has become affected with secondary symptoms in a proportion that could not be expected, seems to have been equally certain. When the syphilitic poison was acting with this violence on the British soldier, under what has been esteemed the most judicious treatment, it was seen, with astonishment, that in the native Portuguese the disease was always mild, curable, for the most part, by topical treatment alone, or wearing itself out when received into the constitution, without any adequate mercurial course. Extraordinary as this circumstance may appear, it is asserted most confidently by Mr. Ferguson; and he farther avers, on his own particular knowledge, that the bulk of the Portuguese people, and all their military in the hospitals, are cured *without the use of mercury*. Convinced of the reality of this fact, Mr. Ferguson deduces from it the following conclusions:

1. That syphilis in its primary state is curable in Portugal without mercury.

2. That the antisyphilitic woods, combined with sudorifics, are an adequate remedy for constitutional symptoms; the quantity of mercury, given by the Portuguese surgeons, being always insignificant, and often altogether omitted; or,

3. That the virulence of the disease has become so much mitigated by reason of a general and inadequately resisted diffusion, or other causes, that, after running a certain course through the respective order of parts, according to the known laws of its progress, it exhausts itself, and ceases spontaneously.

That the improper and inordinate use of mercury had sometimes not only failed to cure, but that the symptoms of

* *Repository*, vol. i. pp. 334, 460.

syphilis were aggravated under its employment, was not unknown to surgery; and Mr. Geoghehan has lately shewn from what this failure has, in many instances, arisen; but that generally, in any place, this disease was curable in all its stadia and forms without mercury, has the semblance of a new fact. It is, however, not to be doubted, that something similar has occurred in several countries. Some of the medical officers in the German regiments in the English service have pertinaciously refused to give mercury in lues, asserting that it was not necessary for the cure; and lately at Moscow, when a surgeon was to be elected for a newly-established hospital for syphilitics, the contest lay between the advocates for and the opposers of mercury.

III. Midwifry.—The acquisition of practical knowledge in the *ars obstetricà* has been much facilitated by the invention and publication of a set of tables, by *Mr. Hogben.* In a series of moveable engravings, adjusted with great ingenuity to each other, this experienced practitioner has been enabled to shew not only the progress of utero-gestation and the stages of parturition, but a method of applying the lever, forceps, or other instruments, such as the case may require. These tables are accompanied with a quarto volume, in part explanatory of the engravings, and constituting in part a systematic view of the science of midwifry*. The merit of invention, however, is due to the tables only; the treatise, though sufficiently correct, has no claim for originality of materials, perspicuity of arrangement, or terseness of composition.

Female diseases have been considerably and successfully illustrated by *Mr. Charles Clarke*†; and, as far as he has yet gone, the profession is deeply indebted to him. The morbid derangements of the sexual organs of the human female, from peculiarity of structure, from the complex functions which they perform, and from habits of life, are numerous, often very dissimilar, but sometimes having a delusive resemblance to each other that occasions perplexity, confusion, and imperfect practice. The object of *Mr. Clarke* is to characterize, arrange, and class these diseases of women, as they are attended with discharges, or, as they exist, without that accompanying circumstance. The sexual diseases attended with discharges are pathagnomonically distinguished by the

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* *Repository*, vol. i. p. 193.

† Observations on the Diseases of Females which are attended with Discharges. Illustrated by plates. By Charles Clarke, Surgeon, Lecturer in Midwifry. 8vo. London, 1814.

discharge being of transparent mucus, being purulent, watery, or opake and white. Of this class Mr. Clarke has yet examined but one order, that accompanied with MUCOUS DISCHARGES.

Discharges from the vagina, *profluvium vaginali*, are various, but perhaps all of them, however different, have been confounded under the popular term *whites*. Mr. Clarke has distinguished them by, and comprized them under, the following nomenclature. 1. Transparent mucous discharge.—2. White opake mucous discharge.—3. Watery discharge.—4. Purulent discharge.—5. Sanguineous discharge. They are all symptomatic of some morbid state of parts. Inasmuch, however, as they characterize and distinguish the nature and quality of the morbid alteration, they require to be known and understood with precision.

Of the diseases accompanied with a *mucous discharge* from the vagina, Mr. Clarke gives the following arrangement. 1. Morbid change, consisting of a displacement of parts—procidentia uteri—procidentia vesicæ—procidentia vaginæ—inversio uteri. 2. Morbid change, consisting of an increased determination of blood to the sexual organs. Hæmorrhoides—ascarides in the rectum, and thence, at times, transferred to the vagina. 3. Carcinoma recti—carcinoma uteri. 4. Polypus uteri. 5. Fleshy tubercle of the uterus. 6. Verrucæ of the vestibulum. 7. Vascular tumour of the orifice of the meatus urinarius. 8. Thickening of the cellular membrane surrounding the urethra.

A variety of mucous discharge from the vagina, denominated transparent mucous discharge, and not depending on or accompanied by an alteration of structure, is described—1. as arising from increased action of the vessels—2. as depending on debility.

Close observation of nature, clearness and originality of arrangement, and rational practical instruction, are the characteristics of Mr. Clarke's work; a production deserving a place in every medical library.

Among the diseases which are peculiar to women in childbed, the most formidable, fatal, and possibly least understood, is a form of pyrexia, denominated *febris puerperalis*. It has been long known that this fever, as a specific disease, is not of frequent occurrence, except in some undefined epidemic constitution of the atmosphere; but to the author* of "Facts

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* Facts and Observations relative to the Fever commonly called Puerperal. By John Armstrong, M. D. Sunderland. 8vo. London, 1814.

and Observations relative to the Fever commonly called Puerperal," the rarity of this disease seems not to have been remarkable*. In a short period, a great number of cases fell under his observation, and were treated by him with marked success. "Observations and dissections," this author says, "equally led me to believe, that fever, of whatever kind, is generally connected with local inflammation, and that for the most part the local inflammation ought to constitute one of the principal considerations in forming a rational and correct plan of treatment."

In the treatment of that form of fever denominated Puerperal in this Treatise, the author, Dr. Armstrong, has been altogether guided by this principle, and his efforts have been accompanied with a success that demonstrates the rectitude of the principle, and justifies the bold temerity of the practice. "The thirty-eight successful cases (in forty-three) were all treated with copious depletions of one kind or another, and in twenty-nine of

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* "From accurate documents now before me," says Dr. Armstrong, "it appears that from the first of January to the first of October, 1813, forty-three distinctly marked cases of puerperal fever have occurred to five practitioners, residing in Sunderland, Bishopwearmouth, and Monkwearmouth." When to these are added several cases seen by Dr. Armstrong himself, after the first of August, and others by Mr. Wolfe, of Chester-le-street, whose practice extends within a few miles of Sunderland, the prevalence of puerperal fever in this part of the north must have been very alarming during a considerable portion of 1813. If the epidemic prevalence of this disease depends on some peculiar state of the atmosphere, it is highly desirable that the peculiarity should be ascertained; and it has been a leading object with the *London Medical Repository* (vid. vol. i. p. 7.) to institute inquiries which should determine such facts. The gentlemen who observed the frequent occurrence of this fever during three-fourths of the year 1813, and especially Dr. Armstrong, who also observed its subsidence from the first of October, will doubtless be convinced of the advantages that may arise from a full and accurate disclosure of the atmospheric variations, arising simultaneously with this fever, and contrasted, in all points, with the variations which took place upon its complete cessation. In the appendix to his Treatise, Dr. Armstrong has given an imperfect notice of the state of the atmosphere from January to October, without barometrical, thermometrical, or hygrometrical observations; nor is it contrasted with the state of the atmosphere directly subsequent on the decline of the fever.

them *calomel was exhibited in doses of a scruple or half a drachm at the beginning, and occasionally repeated in the course of the distemper.* For the most part it passed so expeditiously along the intestinal canal, that there were very few instances in which ptyalism was excited, and whenever this was the case, it seemed a favourable circumstance; all the patients, with only one exception, recovering with more than ordinary celerity from the time that the mouth became affected. And further, to illustrate the superior efficacy of large doses of calomel, it may be remarked, that in none of the five fatal cases, more than fourteen grains of calomel were given on the accession of the fever; jalap, sulphate of magnesia, and castor oil being the cathartics chiefly employed during its progress."

So enormous does the quantity of calomel here given to women so shortly after delivery, appear to be, even to Dr. Armstrong, that he thinks it right to qualify the practice by remarks on the changes of sensibility and irritability which take place in the *primæ viæ*, consequent on the accession of disease. Half a drachm of calomel given in one dose to a woman in the earliest period of the puerperal state, would appear to be a most hazardous dose; but if upon experience, which in such cases can alone decide, this dose should prove to be *not* hazardous, but even remedial, reasoning *a priori* must submit. In the present instance, of a remedy given in an enormous dose, under circumstances of peculiar delicacy in the patient, it is gratifying to have collective evidence. The conjoint testimony of Dr. Armstrong, Mr. Gregson, and Mr. Gregory, as to the large doses of calomel, and the subsequent effects, give some sanction to their practice.

The fever here treated of was considered by Mr. Gregson, under whose care the greater number of cases were placed, to be highly contagious, and that the fomites was transferred by visitors, and sometimes by himself. That there is in some forms of fever, accompanying the puerperal state, a specific peculiarity, and that the fever is not simply symptomatic of peritoneal inflammation, seemed to be proved by the circumstances of its propagation stated by Mr. Gregson, and by the fact, not generally known, that most of the Anatomists or Surgeons who have died consequent upon injury received in the examination *post mortem*, have caught the fatal disease in the dissection of women who have died of puerperal fever.

The treatment of uterine hæmorrhage by opium has not been generally admitted as rational practice. Two arguments have been advanced against its employment in this state of the uterus. 1. It is asserted that opium, acting as a stimulant, accelerates rather than retards the flow of blood from

the uterine vessels. 2. Opium, acting as a sedative, produces a state of atony in the uterus, which prevents its contraction.

Difference of opinion respecting the *modus operandi* of opium has never been more marked than in the above instance. Both positions cannot be true. A medicine that may, by possibility, be employed to advantage in a case of such urgent danger as uterine hæmorrhage, should not have its character left under such loose and hypothetical objections. Dr. Stewart, a Teacher of Midwifry in London, has examined this subject, produced *two* cases of uterine hæmorrhage in which opium was given with unequivocal benefit, and has deduced from them, and from reasoning on the subject, conclusions favorable to the employment of this remedy in similar instances*. The following general rules for the exhibition of opium in uterine hæmorrhage are laid down by Dr. Stewart.

1.—" Opium ought not to be exhibited till it is determined that the natural effects are insufficient to expel the child.

2.—" When it is determined upon delivering the patient by turning the child, a large opiate, not less than eighty drops of the tincture, or four grains of solid opium, ought always to be given; and if the circumstances of the case will permit, twenty minutes if the tincture, and half an hour if the solid opium has been given, should elapse before the hand is introduced.

3.—" As often as symptoms of general irritability, or great debility, intervene, the opiate ought to be repeated, and the dose increased, according to the urgency of the symptoms.

4.—" If the general system has suffered severely from the effects of hæmorrhagy, the opiate must not be diminished in quantity, or suddenly remitted, although symptoms of irritability be not present."

From the space which this part of the Report has occupied in the present Number, it has become necessary to postpone the remaining portion, consisting of " A Nosological Table of Diseases, Synoptical View of the State of the Weather, and Observations on Morbid Effects arising simultaneously with Atmospherical Variations, from December 1813 to May 1814," to the next month.

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* Medico-Chirurgical Transactions, vol. iv.

PART I.

ORIGINAL COMMUNICATIONS.

I.

A General View of the Diseases usually occurring in Boys during the Period between Infancy and Puberty, deduced from Observation of those in Christ's Hospital. By HENRY FIELD, Member of the Society of Apothecaries, London, and Apothecary to Christ's Hospital.

(Continued from Page 288, Volume I.)

TABLE OF DISEASES, 1814.	March.	April.	May.
1 Cynanche Tonsillaris	1	1	2
2 Cynanche Trachealis	2	—	—
3 Rheumatismus acutus	1	—	—
4 Tussis Catarrhalis	3	1	1
5 Febris Synochus	6	4	2
6 Febris Typhus	—	1	—
7 Scarlatina Anginosa	—	—	1
8 Odontalgia Catarrhalis	—	1	—
9 Obstipatio	1	1	3
10 Variola	1	—	—
11 Peritonitis	—	—	1
12 Nausea, Gastrodynia & Diarrhœa	3	6	7
13 Urticaria	1	—	—
14 Lichen simplex	1	2	—
15 Pneumonia	—	—	1
16 Chorea	—	—	1
17 Herpes Zoster	1	—	—
18 Prurigo mitis...(vide Willan, p. 73.)	—	1	1
19 Pompholyx benigna...(do. p. 545.)	1	—	—
Totals	22	18	20

THE vernal months of March, April, and May, have been unusually cold. The warm days, which have occasionally occurred, have been too few to produce that genial temperature, which should characterize a considerable portion of the Spring season, even in this variable climate. The prevailing winds have been between north and east, particularly through the month of May.

The boys of Christ's Hospital have been, during this period, very generally healthy, which is an additional evidence

of the salutary effects of a cold state of atmosphere at that period of life.

The prevailing diseases have been affections of the stomach and bowels, and fever. These have amounted conjointly to almost half of the whole number of patients received into the Infirmary. Diseases of the primæ viæ, will be found most frequently to depend upon irregularities in diet, arising from the indiscreet conduct of the friends of the boys, who, from mistaken kindness, overload them with articles of food, either excessive in quantity, or injurious in quality. The effects of this indiscretion are, however, for the most part speedily removed by suitable evacuations. Fever has been more frequent with us than usual; a few cases of it were tedious and protracted, but without any alarming symptoms: the greater numbers have been slight, and of short duration. One instance of typhus has occurred which ended fatally. The subject of it was a boy, fifteen years of age. In the month of December last, he had the scarlatina anginosa, which was by no means severe, and from which he recovered perfectly, and was dismissed the Infirmary about the close of the year. From this time he continued in good health, with the exception of three or four days slight indisposition, until the middle of April, when he was attacked with fever, which soon assumed a typhoid character: the symptoms were similar to those which generally occur in severe cases of this disease, and he sunk under it on the 21st or 22nd day from the first seizure.

In addition to the remarks upon cynanche trachealis, which were inserted in my last paper, I beg leave to state, that since that time, I have seen, in private practice, a very severe instance of that disease taking place during measles. It came on very suddenly about the fourth day of the eruption, of which there was some appearance of retrocession; the breathing became alarmingly difficult, and the cough almost incessant and highly sonorous. The child was a boy about six years of age. The most vigorous measures were instantly pursued; ten ounces of blood were abstracted from the arm, and an emetic immediately afterwards administered. The symptoms having been very little alleviated by these means, a physician was consulted the same evening, who directed four leeches to be applied to the sternum, a blister to the external fauces, and antimonial remedies in nauseating doses; attention at the same time being given to a due alvine evacuation. These remedies were attended with the happiest effects. On the next day the disease had much abated; the eruption of measles in some degree re-appeared; the danger gradually and daily diminished, though much hoarseness remained for many days; and the

patient is now as perfectly recovered, as the short space of time which has since elapsed could possibly allow. I contemplate this case with peculiar satisfaction, having always considered tracheal inflammation, occurring in the more advanced state of measles, to be highly dangerous.

Christ's Hospital, June 7, 1814.

II.

On Sudden Death in Child-Bed, soon after Delivery. By John Ramsbotham, M.D. Teacher of Midwifry.

Though the act of *parturition* be not a morbid but a natural process, yet it is frequently, in the human female, attended in its progress with difficulty; and sometimes followed, after its completion, with fatality.

The disparity in the degree of danger and difficulty in the same process in woman and in the brute, so much in favour of the latter, is not the effect of accident, but is the natural and necessary consequence of difference in form and structure. The erect position, giving majesty and elegance to the human frame, produces also, in great part, the difficulties and dangers of human parturition. From the posture of the body—from the relatively larger size of the infantile head—from the structure and attachment of the placenta, requiring uterine contraction for its separation—from the changes which the abdominal contents and parts sympathizing with them, undergo upon the expulsion of the child and its appendages, a parturient woman is subjected to numerous hazardous incidents which arise during that process. These peculiar dangers are necessarily attached to and arise out of her form, and the specific nature of her condition.

It is true, that generally, the natural powers do effect those changes during and after labour, which ensure the safety of the woman: but it is equally true, that, occasionally, the efforts of those powers are either suspended, or are so imperfectly exerted, as to leave the latter part of the process incomplete.—In such instances, life is placed in a state of extreme hazard, until the necessary changes be completed.

My present intention is not to enter at large into the discussion of this most important subject: I shall therefore confine my observations to the danger every parturient woman has to encounter on the separation of the placenta; and on the sudden removal of pressure on the expulsion of the uterine

contents: the latter, especially, is a source of danger, which, in my opinion, has not been sufficiently insisted upon, and practically attended to.

When the contractile efforts of the uterus have expelled the child, the placenta is commonly found lying in the vagina, separated from its uterine attachment, and may be removed, in proper time, without difficulty or danger. There is uniformly, on this separation or removal, a greater or less discharge of blood from those uterine vessels, which did communicate with the placenta, but which is checked by the contraction of the uterus; and in proportion to the degree of contraction, the chance of uterine hæmorrhage is increased or diminished. If, however, after the birth of the child, the placenta be not detached, uterine contractions of a slighter description are shortly resumed, and that mass is at first separated from, and afterwards expelled the uterine cavity.—Now, if this natural process should not take place, and an increased discharge of blood ensue, the woman will incur a degree of danger commensurate with the rapidity of the hæmorrhage and the quantity of blood lost; and which danger will exist, till the placenta be ultimately removed, and the uterus firmly contracted.

Under a loss of blood from the uterine vessels, the patient experiences the same symptoms, as under violent or sudden loss of blood from any rupture or division of other blood-vessels. But as the diameter of the uterine vessels, particularly of those communicating with the placenta, has considerably enlarged during the progress of pregnancy, and still remains much dilated, these vessels pour out their contents with a degree of velocity frequently inconsistent with the order and course of the circulation: hence occasionally sudden death occurs, even before danger is apprehended.

Under the continuance of uterine hæmorrhage the woman becomes faint, which effect gradually increases with the loss of blood; the pulse is smaller and quicker; probably a state of complete syncope may ensue, during which the action of the heart is temporarily suspended or imperfectly exerted. In this state the hæmorrhage diminishes, or for the time entirely ceases. Yet, sometimes, after these symptoms have continued for a longer or shorter space, the patient becomes restless, sighs deeply and involuntarily, the pulse gradually loses its beat, and at length the circulation entirely ceases. But before the loss of sense, she complains of spasmodic constriction of the stomach, attended with violent pain.

The causes of such rapid and dangerous symptoms are obvious, viz. the depletion of the vascular system by the loss of that blood which is escaping from the uterine vessels.—The

hæmorrhage too is of a passive kind; the blood is flowing from these vessels, so long as the circulation is going on, for want of a power of collapsing in their extremities, or of diminution of their diameter by the contraction of the uterine parietes.

The usual progress of the symptoms attendant on unrestrained uterine hæmorrhage is nearly similar, whether the loss of blood take place before the removal of the placenta or afterwards. But though the contraction of the uterus be the desirable object in either case, yet some difference in treatment is required.

In hæmorrhage, threatening life before the removal of the placenta, especially if that mass be adherent to the uterine surface, and the natural powers seem inadequate to its separation, manual assistance is demanded. But, when hæmorrhage comes on after the placenta is brought away, such measures are to be had recourse to, and without loss of time, as appear most likely to produce a strong and permanent contraction of the uterus: this, and this alone, will restrain the flooding, and insure the woman's safety.—To accomplish this end, pressure with the hand on the uterine tumor, and the external application of cold, must be ranked among the most conducive means.

Under some circumstances of uterine hæmorrhage, the exhibition of stimulants becomes absolutely necessary to rouse the exhausted powers of vitality. When, for instance, in consequence of a rapid and great depletion, the action of the heart and arteries is nearly suspended, so that the pulse is almost imperceptible, and the woman seems just expiring, the immediate and free use of brandy, or any other stimulant, will usually restore the action of the sanguiferous system, renew those functions which appear nearly destroyed, and prove the means of saving life.—But when those objects are obtained, the further use of such means is not only unnecessary, but injurious.

I have offered these remarks on the effects of uterine hæmorrhage, for the purpose of contrasting the symptoms produced by loss of blood with those occasioned by another, and by no means an infrequent, cause of death after labour, viz. the removal of pressure from the parietes of the abdomen, and the contents of its cavity, as a consequence of the emptying of the uterus.

A woman sometimes appears safely put to bed after an easy and natural labour; she has suffered no unusual loss of blood on the separation and removal of the placenta; the uterus, on the application of the hand, is found well contracted, and the patient, thus far at least, promises to do well; but notwithstanding these favourable appearances, and perhaps even dur-

ing the congratulations of her friends upon the termination of her sufferings, she complains of a degree of faintness, not indeed amounting to syncope, but attended with an inexpressible sensation of sinking; this is followed by restlessness, with an anxious depressed countenance, and occasionally by pain and a sense of constriction at the pit of the stomach; expressions of alarm in such words as these, "O! I shall die!" "I am dying!" are frequently repeated; by and bye the restlessness increases, the countenance becomes more dejected and ghastly, the pulse gradually fails in its stroke, the oppressive constriction on the epigastrium becomes intolerable, so as considerably to affect respiration; and if relief to these symptoms be not speedy, she is shortly a corpse.

Such a termination of a natural process is as unexpected as it is sudden; it consequently strikes the attendants with astonishment and terror, and gives a shock to the feelings of those interested in the welfare of the patient, not to be described.

This unhappy occurrence has happened to women who have had a number of children, and who were moving in a respectable rank of life, in the enjoyment of every domestic comfort, and in possession of every necessary assistance. But I by no means intend to imply, that women who have had a number of children, or those who move in a superior sphere, are exclusively the subjects of this fatal termination of labour. I presume the situation of every lying-in woman renders her somewhat obnoxious to such an attack.

Although the above described case be as dangerous, and the result be as equally fatal as from uterine hæmorrhage, yet it differs in its nature and cause, and requires a distinct mode of treatment. I have before mentioned, that there is an obvious cause for the symptoms under uterine hæmorrhage; whereas in this case, it is by no means evident; it can be surmised only, and is rather presumed than proved.

A very melancholy case of this description happened lately in London. A young lady was delivered of a first child after an easy labour; she appeared to go on very well for a short time, when she complained of a violent pain at the pit of the stomach, and soon after expired. A very accurate examination of the body was made, yet no satisfactory cause of death could be discovered.

What rational solution can be offered of such an unexpected and fatal event? and under circumstances too of promised security but a few minutes before it occurred? And, which is of far more importance, what means seem the most likely, on a similar attack, to avert the threatened danger?

It appears to me probable, that on the removal of pressure, by the sudden emptying of the uterus, the parietes of the

abdomen and its contents do not readily accommodate themselves to the change thus induced; and in consequence, some unfavourable impression is made upon the brain and nervous system, and thence transferred to the heart and circulation. An analogous event occasionally occurs after a great surgical operation; by which the system has sustained such a shock, as, under its effects, is incompatible with the continuance of life.

That a woman may die suddenly from the rupture of a vessel in the brain, or in the thoracic or abdominal cavities, during the violent efforts of labour, is a conclusion sufficiently natural; but I suspect, in an accident of such rare occurrence, there would be symptoms of pressure on the sensorium in the one instance, and of internal hæmorrhage in the other; and the cause of death, on inspection, would be apparent. Besides, it would be the most likely to happen in lingering or difficult labours; whereas in the case now under consideration it takes place after the most easy, quick, and natural labours; wherein but little resistance to the passage of the child has been experienced, and is unattended with an unusual loss of blood: but our attention is principally excited by that alarming sense of sinking and peculiar and inexpressible anxiety. The progress of this unfortunate case must of necessity be rapid, and its termination sudden: the patient is either soon restored, or quickly lost; so that little time is allowed for reflection, and none for procuring additional assistance. The attack must also occur very soon after delivery; for if the necessary changes are accomplished—if the parts have had time to effect that relative accommodation which the change they have so lately undergone requires,—the woman is safe. Now and then a slight rigour succeeds delivery: though this is no dangerous symptom, yet it seems not improbable that it may be connected with the same cause.

The practical inference I would offer, as leading to a decided and successful mode of treatment of such cases, is this; to endeavour by the immediate and free use of stimulants to keep up the action of the nervous and sanguiferous systems, till the first changes in the circulation be effected, and till a mutual accommodation of the several parts within the abdomen has taken place. With this view, at the commencement of faintness *without loss of blood*, I would have recourse to the exhibition of brandy, or other spirit, undiluted or diluted according to the urgency of the symptoms and the rapidity of their progress, and in such quantity as may seem necessary to answer the intended purpose. That purpose being attained, and the patient relieved, further use of stimulants may do harm. The medicated stimuli, as æther, volatile spirit, cor-

dial tinctures, &c. may of course be used with advantage. Moderate pressure upon the abdomen with the hand, or a bandage applied round the body, will assist the general intention; and the patient ought, on no consideration, to be allowed to raise herself from the recumbent posture, till she be so far recovered as to warrant security from the recurrence of the symptoms of alarm and danger.

Old Jewry, May 12, 1814.

*** The many valuable lives reported as having been recently lost to society in the same manner as here described by Dr. Ramsbotham, renders this a subject that commands a deep and serious investigation. So sudden, unexpected, and fatal a termination of a natural process is indeed surprising. A woman passes through labour with celerity and with unusual ease: she appears as well as circumstances, apparently so favourable, promise; but she suddenly falls into *deliquium animi*, and almost immediately expires. In the practice of an individual, during a period approximating to five-and-twenty years, and of moderate extent among every class of females, this fatal accident has not once happened; but the patients of the individual here meant were left, after delivery, for two hours generally, sometimes longer, without being moved, and always with the head lying low. We will not attempt to theorize or reason on this fact; we relate it as it has happened: but most earnestly wish, however, to have it clearly ascertained, whether, in the instances of this fatal syncope, the patient had early, that is within an hour or two after delivery, been suffered to sit up in bed; or, with an idea to comfort, her head and shoulders had been raised high with pillows. Whatever may be the cause of this fatal deliquium, or whatever theory respecting it may be adopted, we trust the fact will not escape the notice of our readers, and the Professors of Midwifry particularly; so that the cause, effect, and treatment may be fully elucidated.—Editors.

III.

Strictures on "An Enquiry *into the Probability and Rationality of* Mr. Hunter's *Theory of Life, by* John Abernethy, F.R.S. &c."

I have lately perused a publication of an eminent anatomist and physiologist, intitled, "An Enquiry into the Probability and Rationality of Mr. Hunter's Theory of Life," being the substance of two lectures delivered at Surgeons' Hall; the professed basis of which work is, to shew, that "*life does not*

depend on organization," an opinion which it appears Mr. Hunter held as well as the author of the "Enquiry;" but which, with great submission, I should have supposed, hardly required the sanction of two such respectable authorities. It is well known, that certain modern materialists, however, do assert the affirmative of this proposition, and although the ingenious and able writer of the Tract in question professes to oppose them on that particular point, I wish that in many parts of his book he had not (I am sure undesignedly) given a sanction to similar opinions of the same philosophers, which are no less erroneous and dangerous in their nature and tendency.

For example, in p. 14 he says, "Whoever duly reflects on the extent of human knowledge and power, cannot but feel an interest in anatomical enquiries; since he must perceive that it is by the means of the organization of the body, the mind acquires all its information, and executes all its purposes;" a passage which I apprehend is capable, from the unguarded manner in which it is stated, to lead many to conclude, that the organization of the human body is the efficient and primary, rather than the subordinate and secondary cause of the mind acquiring its information, and executing its purposes. Again in page 15, the writer says with still less caution, "when we analyse the body, we find, that every organ and every portion of it is composed of a few and simple vessels, a few and simple fibres, and that by these it is *originally formed, kept in constant repair, endowed with animation, sensation, and motion.*"—Here it is not too much to assert, that to the bulk of readers this writer will again be supposed to refer to organization as to the operative, rather than the instrumental cause of vitality.

In page 16 also, the fibres are stated to be "the only visible means by which motion and sensation are produced;" and in p. 44, Mr. Hunter is represented as pointing out "how matter starting from the general mass springs up into life in vegetation;" a leap, which, with all submission to the lecturer and to his illustrious authority, matter never did and never will take; since matter is matter still, notwithstanding such learned lucubrations; and since the vegetative principle which resides in the seed is vegetative principle, still, in spite of this scientific attempt to confound two things, which in the scriptural account of the creation, are kept as distinct from each other as vegetative life is in its turn distinguished from animal life. Thus again in page 46, we find attributed to all living beings "the power of converting *other kinds of matter* into that appropriate to the individual it is to form and support." Where the phrase, "*other kinds of matter*" is assuredly too loose, as likely to lead those inexperienced students who have yet their principles to form, to imagine, that their able instructor meant

to represent that body which was made "in the image of God, and into which there was breathed a living soul;" to be merely one modification of matter and nothing beyond it, an opinion, which I am persuaded is by no means held by the writer, but to which I apprehend he should not have offered even the apparent sanction of his high authority. Again in page 48, we are reminded of Mr. Hunter's notion of a great chain of being, which "seems to connect even man with the common matter of the universe;" by which phraseology the essential distinction subsisting between man and matter is softened down, and the two things, however distinct in themselves, are treated nearly as convertible terms; a theory which is shortly after (page 54) supported by a quotation from Virgil, in which *men and cattle*, flying birds, and marine monsters, are very harmoniously classed in the same couplet. In page 81, we have the same philosophy carried out into practice, for it is there gravely asked by the Lecturer, "if a man's leg be amputated, and by voltaic electricity I excite contraction in its muscles for some hours, *how can I know whether they feel or not?*"

Now, let it be conceded to the writer, and to Sir Humphrey Davy, (whose authority is frequently quoted in the Tract,) that electricity, as a secondary cause, may possibly account for some of the phenomena of nature; yet it surely will not be contended by them; that electricity can produce feeling, where there is no sentient principle to be affected, or that an amputated limb, without the immaterial spirit with which it was once connected, can *feel* any more than it can *walk*. I am bound in charity to suppose, that although the Lecturer cannot prove such a negative, as that this limb does not feel, yet that he never can seriously imagine it does feel. I would then ask, where is the use of the question; and is it not eminently calculated to mislead those young students to whom the lecture under consideration was addressed? I feel so assured, that the learned Lecturer did not mean to attribute to a limb in this condition, the consciousness either of pain or pleasure, that I do not refer him to that remarkable passage in Burnett's Theory of the Earth, (vol. i. ch. 10.) where the connection between the soul and body (as evidenced among other things by the sense of pain experienced by the former upon injuries inflicted on the latter) is so ably established. I only contend, that if he had no such object, he should not have led his hearers and readers to suppose he had, by a question of so equivocal a nature in this place, and by observations in other places, so capable of being interpreted as meant to advocate the cause of a philosophy now almost as universally exposed and exploded, as the politics which were professed by the same school.

It is painful to consider, that the demoralizing metaphysics

of modern scepticism should appear even for a moment to derive the slightest sanction from any loose and incautious expressions of so profound a thinker as this author. Common men may commit inaccuracies with more impunity; their mistakes affect a smaller circle and expire with themselves; but it is otherwise in the case before us, neither is it enough that error be excluded from the chairs of such professors; it is necessary also, that the terms in which they convey instruction, should be too simple and intelligible to leave any doubt on a single mind, whether error be excluded or not.

NO MATERIALIST.

London, May 1814.

IV.

On Blood-letting in Typhus. By J. O'DONNEL, M.D.

ON reading the observations in the MEDICAL REPOSITORY for this month, upon Dr. Mills's publication on the Use of Blood-letting in Fever, it occurred to me that the following extracts of a letter, dated December 1809, from a medical friend, then one of the physicians to Haslar Hospital, might be usefully presented to the medical public at this moment; not only because they contain facts of great practical importance, but also because they tend to remove the apprehension which generally prevails against the use of the lancet in fever, particularly in typhus fever: apprehension, which even the success related by Dr. Mills, in the greatest number of cases probably ever recorded, as having come under the care of an individual, has not been able to remove.

" We have received many hundreds of soldiers from Walcheren labouring under fever, and divers other maladies, yet I must say that few of these were marked by the genuine typhoid type; and indeed such as were affected could ill bear the effects of purgative medicines, from the very lax state of the bowels. The nature of the fever was of the continued, remittent, and intermittent kinds; and many who had been convalescent for a week, or more, had been suddenly attacked with dysentery, or universal anasarca, especially those who had been put on animal food diet, for which they had, and still continue to have, a most voracious desire, whether convalescent or labouring under acute febrile symptoms. All those who were sent in the early stage of the continued fever, were subjected to the operation of the lancet, and all have done well. I am fully convinced that many hundreds would have been saved to

the country, had the medical attendants had early recourse to blood-letting; but the idea of typhus fever has taken such firm possession of the minds of practitioners in general, as to warp the judgment whenever a large community is similarly affected. This, they think, can only arise from contagion, and contagion must be of a putrid nature; hence the use of bark, wine, and other stimulants; and hence furred tongue, conjestion of the brain, delirium, and death; or, Nature triumphs over the Physician, and the patient recovers. Out of one hundred and thirty seamen and marines, who had been from four to six weeks on shore at Flushing, and had been attacked with the prevailing endemic, and sent to this hospital under my care, one hundred and ten of them were bled from sixteen to eighteen ounces, and repeated twice, thrice, and in many cases four times. Every man recovered; and my colleagues were equally successful. But many of the soldiers having arrived here in the last and most deplorable stage of the fever, and who had been injudiciously treated, or wholly neglected, at the commencement of the febrile attack—among those the mortality has been great, principally dying on the first, second, or third day after admission. In many regular quotidians I was under the necessity of bleeding once or twice before the disease would yield. In typhus fever, usually so called, attended with high delirium, thirst, inflamed eyes, dry, dark, and furred tongue, the lancet may be used with the most decided advantage. The morbid appearance of the brain after death, in all those cases where I had an opportunity of examining them, and they were many, have almost invariably discovered marks of high inflammation; to which cause I attribute the death of the patient.

"When the unfortunate remains of the army under Sir John Moore arrived in England, the ships' crews of all the men of war employed in bringing home the troops, were seized with a similar fever to that of the soldiers. The disease was of course considered as typhus of the most malignant and contagious nature: the treatment was bark and wine, liberally administered. I received twenty-five patients under these circumstances from the Victory, twenty-four from the Audacious, and six from the Hindostan, during my receiving-week. The symptoms were in all precisely the same as those above described, in a more or less degree of violence. Bark and wine had been copiously exhibited. Those from the Hindostan had been from fourteen to sixteen days ill; the Victory's men eight or nine days; and the Audacious's people only four or five. Two, belonging to the first named ship out of six died in sixteen hours after admission; one from the second in thirty hours; but none from the last ship. They were all affected

with furious delirium, and all were copiously and repeatedly bled, except those who died, and who, literally speaking, were in *articulo mortis* when received. The blood of many did not exhibit the buffy appearance; but the texture was unusually firm, of a florid or vermillion colour, and almost free from serum. This description is chiefly applicable to the Hindostan's and the Victory's men; for the blood taken from the Audacious's patients, who had been sent in in the early stage of the fever, was buffy, and cupped with a large portion of serum."

I do not mean to occupy your valuable sheets with any comments upon the foregoing facts. If you think of the communication as I do, you will give it a place in your useful publication.

Uxbridge, May 25, 1814.

V.

Mr. Vise's *Answer to a* Borough Friend's *Query*.

As the inquiry (see Repository, p. 288) of a Borough Friend is plainly and civilly made, I can have no objection to answer it; although I cannot help considering its tendency more theoretical than practical.

The prostrate gland was certainly enlarged; which I had ascertained by examination *per rectum* previously to puncturing the bladder.

However I deemed myself justified in preferring the operation—from the urgency of the symptoms—from the failure of every means of relieving him—and the consequent hazard of the patient's life.

A Medical Friend at Peterborough has since performed the same operation, under nearly similar circumstances, and with equal success.

If practitioners, like myself, practically engaged in extensive professional vocations, were always to observe the rules which theory alone would dictate, many valuable lives would be lost to their country. I believe it is not common to amputate at the knee-joint; and yet imperious circumstances some years ago compelled me to adopt that operation in a youth of nine years of age. He did well; and is now a stout and active member of society.

Spalding, April 10, 1814.

VI.

A new Mode of preparing the Unguentum Hydrargyri. By JOHN HIGGINBOTTOM, Surgeon, Nottingham.

HAVING discovered a new mode of preparing the strong mercurial ointment, which considerably lessens the labour and time usually required for its preparation, I feel a pleasure in communicating it for public utility through the medium of the REPOSITORY.

Several years ago, during my apprenticeship, I made a pound of the ointment in the short space of an hour and a half: at first I could not account for it.—I thought some of the quicksilver must have been lost; but, afterwards, I recollected that I had previously prepared a similar quantity of the ointment (after a number of hours hard labour), and that I had left a little in the mortar; to which I had added quicksilver to make another pound. This led me to consider whether the addition of the old ointment was the cause of the easy union; and experiments proved that to be the case.

Since then I have been able to improve upon it; for I find that if I put six ounces of quicksilver into a proper sized mortar with two ounces of good strong mercurial ointment, and rub them briskly together, the globules of quicksilver disappear in two or three minutes; and by continuing to rub it well for five or six minutes longer, an union will be so far accomplished that the lard may be gradually added.—By this simple process a pound of ointment may be well made in ten or twelve minutes, which, according to the usual method, requires as many hours *.

Nottingham, June 4, 1814.

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* Such communications as this we esteem particularly valuable. If all the accidental facts observed to occur in pharmaceutical operations were carefully noted, and given to the public as in the above instance, the art of pharmacy would soon attain a high degree of perfection.—EDITORS.

PART II.

ANALYTICAL REVIEW.

I.

Commentaries on the Treatment of the Venereal Disease, particularly in its exasperated State: and on the Use of Mercury. With an Appendix, on Strictures of the Urethra: and on morbid Retention of Urine. By Edward Geoghegan, Member of the Royal College of Surgeons in Ireland, &c. &c. &c. 8vo. pp. 219. Callow, London. 1814.

These Commentaries, including a second edition of a publication that appeared in the year 1802, contain a series of practical observations on phymosis accompanied by inflammation and mortification—on paraphymosis—on phagedenic ulcer—on venereal bubo—on ulcerated fauces, and sloughing of the uvula—with instructions for the use of mercury, so as to ensure its successful effect.

The first section treats, at considerable length, a subject of great practical importance, and one of much difficulty to the young practitioner. The propriety of employing mercury in certain inflamed, ulcerated, or gangrenous states of the penis, accompanying venereal chancre, is a question become so complex and involved, by referring to some peculiar virulence in the syphilitic virus, that even John Hunter gave an opinion relative to its treatment, that fully shewed the indecision of his own mind on the subject. The view Mr. Geoghegan takes of it appears to remove the whole difficulty: and though we cannot quite agree with him, in attributing this inflamed and occasional gangrenous state of the penis to some epidemic constitution of the atmosphere; we admit, in the fullest extent, the soundness of his principle, and anticipate the efficacy of the practice arising out of that principle.

"When the ordinary symptoms of an infectious disease appear to be exasperated in an unusual degree, the question arises, to what are we to attribute this increased degree? whether to increased acrimony of the poison, or to any adventitious or physical causes, insensibly operating?"

In applying this general proposition to a particular case,

phymosis and erysipelatous inflammation of the penis, the author examines the question very fully; and comes to the conclusion that this aggravated state of disease does not depend on any exalted or peculiar quality of the syphilitic virus, but arises from physical causes unconnected with the specific poison, and therefore not requiring the use of mercury; but that the malady is always, and most seriously increased by the employment of that mineral. A number of facts are produced to shew that this morbid state does actually arise from causes *ab extra*, generated either locally, and to be avoided by a removal from particular places, or by a correction of their peculiarities; or depending on some undefined atmospherical influence, denominated an "epidemic constitution of the air," which operates, in various degrees, on all forms of disease occurring during its existence.

A remarkable instance of the first cause is given from M. Brugerius, formerly surgeon in chief to the army of Italy. "The Military Hospital of Toulon, the situation of which is low and close, proved formerly little better than the tomb of most of the patients admitted, and especially such as laboured under *syphilis*, the greater number of inflammatory venereal symptoms terminating in gangrene. Phymosis and paraphymosis were often followed by a total loss of the penis, the mortification sometimes spreading into the neighbouring parts. Gangrene also frequently seized on ulcerated bubos, spreading along the thigh, or abdomen, and sometimes destroying all the external parts of generation. Struck with these alarming appearances, M. Brugerius visited the military hospitals of the north, for the purpose of observing whether venereal disorders in them were subject to similar accidents; the contrary was found to be the case, and their occurrence at Toulon was therefore justly attributed to local causes. When the wards of the hospital were raised, and ventilation strictly attended to, these gangrenes ceased to appear."—*Journal de Medicine, vol. viii.*

Of the second cause, a more general deleterious atmospherical influence, the summer, autumn, and winter of 1799, are selected as instances:

"This period furnishes," says Mr. Geoghegan, "ample and melancholy proofs of the existence of a cause sufficient to derange the animal machine; a season so unpropitious, as to have increased the mass of human misery in these countries, to a degree afflicting and awful indeed. The order of the physical world must have been inverted, were not diseases influenced by that state of the weather, which proved so universally destructive to vegetation: from the 27th of June to the 17th of November, there were only eight days free from rain; and, although it does not appear that

the prevalence of any particular epidemic was marked, yet the ordinary diseases of every class were evidently increased in number and degree. Remarkably obstinate rheumatisms were very prevalent in every part of the empire; also dysenteries, ophthalmias, and measles of a very bad kind."

The erysipelatous inflammation of the penis supervening to chancre, and sometimes to gonorrhœa, is said to have prevailed at this epidemic season to a very unusual extent, and to have often terminated in gangrene. On the authority of Mr. Henthorn, Senior Surgeon to the Lock Hospital, it is stated that an extraordinary number of these cases presented themselves there at this period, but that they were of the putrid type, particularly among females; and mortifications were very common, set in early, and often proved fatal.

That a disease of this formidable kind, and especially so under improper treatment, we are fully aware, is no great novelty to practical surgeons: but, whether it arises out of some epidemic atmospherical state, or from local miasma, is the offspring of an extraordinary virulent syphilitic matter, or is produced by an undue exhibition of mercury: whether it is connected with particular idiosyncracy; or is occasioned by some external accident, as exposure to cold, independent of any specific quality in that cold; by mere mechanical friction; by blows; or by combinations of these, we are not prepared to determine: nor do we perceive that the ingenious author of this volume has overcome the difficulty. His reasonings upon the exciting causes are too valuable, however, to be overlooked; and we recommend, particularly to the junior branches of the profession, a serious consideration of the whole section.

With the treatment of this tumified and inflamed state of the penis, we perfectly concur. The substitution of evacuants generally, and every means that can subdue the increased action and high temperature of the system, as well as the morbid heat of the affected part, for bark, wine, and other stimulants or tonics, so frequently prescribed with the *mistaken* view of preventing debility and sphacelus, and of mercury with the idea of neutralizing a specific poison, is founded with such firmness on the laws of animal life, and has been so unequivocally supported by success in practice, that little more seems necessary to its general adoption than to have it plainly and fairly stated. And this is so ably done in the author's detail of the general and local treatment of phymosis, that we believe our readers will not be displeased with our quoting rather largely from this part of the work.

"In determining on the mode of treatment, which is adapted to this symptom, it is necessary to recall to our recollection, that

the inflammation exceeds that which the venereal virus usually produces; this, most authorities allow: that it is often produced by external causes, also, when the venereal appearances are mild, and the antidote exerting its full effect; that it accompanies gonorrhea occasionally, which is curable without mercury; that it is produced by the bad air of hospitals; and, that it occurs most frequently at these periods, when the state of the atmosphere gives rise to many diseases, and aggravates all; nay, that it takes place wholly independently of the venereal poison, and that it was well known among the ancients, and before this poison was noticed; in short, that it is an accessary disease, and so violent, as to require being remedied in the first instance: and as it is admitted, that when an accessary disease takes place, it ought to be removed previously to attempting the cure of the original, every fundamental principle of the *ars medendi* establishes it, that this new disease is first to be attended to. It is a maxim of John Hunter, "that two actions cannot take place in the same part at one and the same time;" to which I subscribe, for I consider it perfectly consistent with the laws of the animal economy, that one disease may supervene on another, suddenly or progressively, and the new action prevail so as to suspend the original; although the *materia morbi* of the original, shall still exist, and produce its effects, after the accessary disease had been removed. Surely were Fever, Pneumonia, Catarrh, Cynanche tonsillaris, to attack a patient, known to be infected with the venereal disease, the mode of treatment in these diseases would be pursued, but no mercury, until after they had subsided.

"A moment's consideration as to the effects of mercury when the habit is impregnated with it, will convince us, that the worst consequences are to be dreaded from its use in active inflammation of parts of loose structure, and disposed to sphacelate rather suddenly from any extraordinary excitement. Hunter says, "it produces universal irritability, making the constitution more susceptible of all impressions; it quickens the pulse, also increases its hardness, producing a kind of temporary fever; but in many instances it exceeds this, acting as it were a poison."

"He also observes, that he has seen it exhibited in a sore throat, mistaken for venereal, and as soon as it has affected the mouth, it brought on mortification. We every day see that in the mouth it produces violent inflammation, ulceration, and sometimes mortification; granting that these consequences sometimes attend its use, it is reasonably to be dreaded that it will precipitate inflamed parts, of such structure as the penis, into mortification, and prove injurious in diseases of other parts, mistaken for venereal.

"From this view; namely, that this symptom is not occasioned by the virus, and that mercury is not only unnecessary, but prejudicial, I would reject its use *in toto*, and treat the complaint as common inflammation, demanding prompt and vigorous measures for its cure. The great functions of the penis, require that it shall

be often distended, and for this purpose an extraordinary quantity of blood, is determined more frequently to it, than to any other part, and its return is in a great measure impeded; this structure and its natural sensibility, dispose it to be rather suddenly inflated when irritated, and I think points a leading feature in the treatment; to lessen the determination of blood to the part, and to allay local irritation; the former will be best effected by blood-letting, and the other evacuations; the latter, by such applications as are refrigerant and sedative. If the symptoms run high, I take off a pound of blood at the onset, when there is no contra-indication, and I never find it necessary to repeat it; if the symptoms are moderate, I omit bleeding, and direct brisk purging in the day, and at night two grains of antimonial powder, and one grain of opium, in a pill, which latter I repeat after six hours, if the distress continues. The tongue is generally furred, skin hot, and pulse frequent; a state that forbids every medicine of the astringent kind, and, I think, opium also, unless its use is preceded by evacuations, and it is combined with antimonials or ipecacuanha in the proportion before mentioned. They who are subject to diseases of the hepatic system, are peculiarly liable to erysipelatous inflammation; should the penis become its seat, which it is easy to conceive, may happen from the causes before-mentioned, surely evacuations are decidedly indicated; and I have observed, that diffused inflammation of the penis is a more frequent disease in persons said to be bilious than others; I think that bark is by no means indicated. Inflammation of the testicle, often arises from the same cause as inflammation of the penis; a stream of cold air will occasion both. Would any man direct bark or mercury in the former? Surely not. Mr. Hunter advises bleeding and purging, and no mercury in inflamed testis; yet he advises bark and mercury in its kindred affection, inflamed penis; as this latter generally arises from a constitutional cause, and when it does not, is materially influenced by it, the great stress should be laid on the constitutional treatment. The old authors appear to me to have had a more correct view of it than the moderns, and the practice of the former, to have been far more judicious than that of the latter. Van Swieten recommends repeated bleedings, and purging, and a strict antiphlogistic plan, as the only means of preventing mortification; even should the phymosis arise from ulcers, he pursued the same plan with success.

"Astruc says, that the only means of preventing mortification, is by quickly subduing the inflammation, and he advises bleeding repeated every fourth or sixth hour, for the first day or two, and to avoid all stimulating applications; he observes that it is always accompanied with fever; he cautions, that the detergents which he recommends for the ulcers, should be of the mildest kind, lest the inflammation should by any means be renewed; after the latter had been completely removed, he desires that mercury should be given. Wiseman, and most surgeons of his day, treated inflam-

mation of this kind by evacuations, whether ulcers existed or not, and gave very little mercury."—pp. 73—81.

Upon the local treatment of phymosis, the following observations deserve to be noticed, not only as examining with much acumen opinions issuing from high authority, but as practically applicable to a disease requiring prompt decision.

"Several practitioners, Mr. B. Bell particularly, advise the application of leeches; I object to them, because the entire surface of the penis is inflamed, which state is always greatly aggravated by the bites of these animals, and during their application, and the after bleeding, it is kept a length of time in a state of irritation, and the patient teazed with a tedious process, so as to preclude rest for many hours; how much more convenient and beneficial would it be, to take the same quantity from the arm in a few minutes, avoiding all those causes of irritation?

"Hunter directs, 'that a solution of the corossive muriate of mercury shall be injected between the glans and prepuce, in the proportion of one grain to an ounce of water, and to suffer it to remain in contact with the parts;' these proportions will not admit of a complete solution, of course, some of the substance may be thrown up. In the same paragraph, he says, that he has his doubts as to the propriety of using any irritating injections in such cases; this latter remark renders it abundantly clear, that he had no experience of their beneficial effects; why then recommend them? From theory alone. Surely it is fit then that we examine the theory;—it comes simply to this, would an highly irritating application be advisable in inflammation, threatening mortification of any other part? Surely not. On what principle then can it be applicable to such a state, when the part diseased is more highly sensible than any other of the body; one grain of the hydrarg. mur. cor. is insoluble in an ounce of water, and must prove highly irritating. I have known an instance of violent phymosis having been brought on by this application, when used to remove warts; and allowing it to remain in contact with the parts, as Hunter directs, would be a more effectual means of increasing the mischief. Had Mr. Hunter advised this practice from experience, I would object to it with particular caution, but he expresses doubts that it is proper; and it is of moment that the practical notions of so distinguished a surgeon, should be established, if well founded, or overthrown, if erroneous; indeed, the recommendation and prohibition are expressed in such equivocal terms, that no rule of practice can be inferred. I am therefore anxious to stamp it with decided disapprobation; warm water, or milk, should be cautiously injected under the prepuce at the upper part, every half hour, and the discharge gently pressed out. As an external fotus, I have often directed a solution of the acetum plumbi, in the proportions of one grain to an ounce of water, first dissolved in a few drops of distilled vinegar, to be applied warm, and constantly

by wetted cloths. I think that a stronger solution is not so well adapted; parts in such an high state of morbid sensibility, can ill bear active applications of any kind, and the medicinal or noxious properties may turn upon judiciously apportioning the quantities; Van Swieten used a weak fotus of this kind with great advantage; finding that the part was frequently disturbed by renewing the application, I now direct the ointment of acetate of lead spread on linen, to be applied around the penis, as it requires to be but seldom renewed; it should be made in the following manner, to ensure a perfect solution, and consequent admixture of the acetate of lead; one drachm should be dissolved in two drachms of distilled vinegar, and afterwards mixed with ten drachms of simple ointment; the prescription in the different Pharmacopeias, to mix the acetate of lead with the ointment, is not judicious, as the acetate not being previously dissolved, cannot be perfectly mixed, and the spiculæ remain in a concentrated state; confinement to bed should be strictly enjoined, and the careful suspension of the penis particularly attended to; it should not be up to the belly, as Celsus directs, this situation is unfavourable to the free exit of the discharge, and distorts the part in some degree; it should be merely not pendulous. I disapprove of hot aromatic fomentations, as they increase the determination of blood to the part, and promote its distension. Some surgeons recommend that the prepuce be slit up, as remedical of violent phymosis; in deciding on this practice, I would make this distinction; if the subject was very irritable, or unhealthy, and fever attended, I would disapprove of it; but if the contrary state prevailed, it might be done with advantage and without danger in some cases.

"I lately heard a lecturer (Mr. Kirby), whose talents I highly respect, declare to his pupils, that when he commenced practice, he was in the habit, for some years, of giving mercury in cases such as I have been describing, and that the most destructive consequences attended; he said, that he pursued the practice because it was recommended by the most respectable authorities, and he had seen it employed by several surgeons of high character. This manly and ingenuous declaration enhances not a little, the value of this Gentleman's instructions; and when I reflect that this practice is taught by Hunter, Howard, and Swediaur, I am not surprised that it should be very much followed."—pp. 91—103.

It has often been our misfortune to combat opinions respecting the means to be employed to prevent the accession of gangrene or destructive debility, in cases of wounds, abscess, erysipelas, &c. opinions entitled to credit, because they came from men whose professional stations and acknowledged talents give authority. That persons deeply acquainted with the laws of organic life, and with the progress and termination of disease, should recommend bark, wine, and even alcohol, during great excitement and increased vascular action, to prevent

subsequent debility and its consequences; and that hot and stimulating tonics should be applied to parts, the temperature and action of which were enormously increased, would hardly be believed, did not the fact often occur. To increase the morbid action of the system generally, and to add to the heat of parts, the temperature of which is morbidly high, with a view to prevent the subsequent evils of debility and sphacelus, is as illogical as to insist that the increase of a cause will diminish an effect. In the various forms of fever, the stimulating, and as it has been falsely called, supporting and tonic process, has fortunately given way to a more rational practice. The abstraction of caloric, the quiet and ease of the patient, a regard to the stomach and bowels, and to the state of topical affections (perhaps always having an inflammatory tendency), have, in fever, superceded the use of bark and wine. Why this principle has not yet fully extended to British surgery is not easily explained: and why it yet seems reasonable to some surgeons, that an increase of heat and vascular action, or, in other words, the employment of substances, always productive of these, should prevent subsequent debility, is very mysterious. Mr. Geoghegan has attended with great propriety to this subject, and shews in the following passage that "they manage this better in France."

"The difference between the practice of the British and French surgeons, is not a little remarkable; the former pursue the invigorating plan, under the very circumstances in which the latter pursue the evacuating; in Desault's works, we have many instances of erysipelatous inflammation, threatening gangrene, that terminated favourably by the use of purgatives; the ammoniated tartar was the medicine prescribed. In one instance, a man who had a violent erysipelatous inflammation, occasioned by the bite of a horse; the symptoms yielded to plentiful evacuations, but from taking food in large quantities, they returned, and put on a gangrenous appearance; they were again removed by evacuations. In these countries, bark and wine would have been the medicines recommended; the administration of this plan is productive of very great mischief. I believe that there are few cases of sudden inflammation, to which it is adapted, and it requires the nicest discrimination to decide when it is; there is an important distinction between that state which threatens mortification, and its actual existence; bark and cordials in the former, and in young subjects, or in those who were not reduced by previous indisposition, are injudicious; the debility attendant on such cases, is of a temporary nature, the effect of inflammation and pain, and very often of bilious accumulation, which depresses like a poison; under such circumstances, surely bark, &c. are contra-indicated, as calculated to increase the debility, by over-stimulating, whilst

evacuations, by removing the burden, most effectually relieve the debility."—pp. 81-83.

The section on phagedenic chancre is of great practical importance. Its object is to prove the mischiefs that arise from the employment of mercury in that form of ulcer, which is characterized by successive formation of sloughs, gradually destroying the part on which the ulcer is situated. The phagedenic chancre, Mr. Geoghegan asserts, is not a truly venereal ulcer, but a supervening disease. The habits liable to it are marked by a high degree of irritability, and an idiosyncracy to which mercury is inimical. In this species of ulceration, after the inflammatory diathesis has been subdued by proper evacuations, sarsaparilla is the substance upon which most dependance is here placed. The opinions of the powers of the sarsaparilla being at such variance, we shall cite the passage which endeavours to restore it to its former importance.

"When phagedena, or a burrowing sore, is an early symptom, it is almost invariably accompanied by quick pulse, dry skin, furred tongue, and great pain; hence the necessity of purging until the tongue becomes clean, and the anodyne and sudorific medicines, as directed in treating of phymosis; if the distress is excessive, bleeding in proportion to the strength, will be advisable at this early period; and in the more advanced stage, warm baths, and the soothing plan. In obstinate cases, a dry and warm atmosphere, particularly in the country, will be of material service; the only medicine I can recommend from experience, is sarsaparilla given alone; when it is combined with guiacum, and the other ingredients that form the decoctum lignorum, the habit is too much excited, an effect that is unfriendly to an irritable condition. I also object to mercury in any form, accompanying sarsaparilla, on the same principle, and also for the reasons advanced before; namely, that this description of ulcer is not perpetuated by the venereal poison, and that it has not a venereal origin, in some cases; the effects of mercury appear to me to be of a different nature, from those that are produced by sarsaparilla; the former evinces all the properties of an irritant, the other of a demulcent; hence the mercury will countervail the sarsaparilla, provided that the case forbids irritating medicines; that medicines of opposite properties, will produce effects, when combined, which separately, they would be unequal to, I am aware, and am satisfied, that this very combination I now forbid, is advisable in some particular cases of the venereal disease; but having witnessed the worst consequences from the use of mercury in every form, and finding that the records of practice, abound with similar cases, I feel warranted in insisting that its administration as an antisyphilitic, is improper in the treatment of the particular sore, and state of body, I speak of, whatever might

have been the original cause. It is nearly two centuries and a half, since sarsaparilla was first brought into Europe, from the Spanish West Indies, where it was deemed a specific for the venereal disease, and it has been much employed to the present day, extolled by some, and decried by others; it is reasonable surely to infer, from its reputation being so high at one period, and with so many practitioners, and being preserved such a length of time, although in a less degree, that it possesses valuable properties, and that its occasional inefficacy is to be attributed to contingent circumstances, similar to what happens in the administration of every medicine. The observation of Boerhaave, 'that he knew no *remedy* but became *such*, solely by its seasonable use,' cannot be too often presented to us. From my own experience, and what I have collected from the experience of others, I am of opinion, that the indiscriminate use of sarsaparilla, has brought it into disrepute, and that if administered in appropriate cases, it will sometimes cure the venereal disease, and always in these cases, prove beneficial; the question arises here, in what description of cases is it, that its beneficial effects are to be expected? This leads us to inquire under what circumstances has it usually succeeded, as furnishing the only rational clue by which to be guided, for if it proves efficacious, only under *particular circumstances*, its failure in general use, ought not to invalidate its character; practitioners, I presume, are agreed that it is in irritable and weak habits, and such as mercury is found to prove soon injurious to, that the sarsa is most beneficial: mercury has been often laid aside, (although but a small quantity had been used), on account of the symptoms being aggravated, and the health reduced, and a cure has been effected by the sarsa, where appearances were most formidable. Dr. Harris, speaks positively as to its success in curing infants labouring under the venereal disease; these facts furnish good ground for considering it medicinal in the venereal disease, in subjects that enjoy but feeble life; and in prescribing it, it is material to be guided by this consideration, and not to undervalue the remedy, when it fails in an opposite condition of body."—pp. 119—124.

Sarsaparilla is considered by Mr. Geoghegan to be a powerful remedy whenever latent scrofula is brought into action by the long-continued use of mercury. The simple decoction, in the proportion of three ounces of the radix to two pounds of water, is the form preferred. The patient commences with one pound of this decoction daily for a week, and gradually increases it to near three pounds.

In the cure of phagedenic ulcer, and of almost every general and local disease, an attention to the state of the stomach and the process of digestion is considered to be of most essential importance. Full justice is done to the opinions and practice of Mr. Abernethy; and although this excellent surgeon

and profound physiologist may at times push his hypothesis a little beyond the limits that cool reason would allow, even then he is respectable; and when we cannot always entirely agree with him, we submit with that deference which is due to the highest order of intellect.

"The influence of the healthy, or diseased state of the stomach, on every part of the body, received a full consideration from most of the old writers. *Rega*, in his valuable Treatise on Sympathy*, gives the following apposite lines from Serenus Sammonicus. 'Qui Stomachum Regem totius corporis esse contendunt, veti vera ratione videntur: hujus enim validus firmat tenor omnia, membra et contra ejusdem infirmantur cuncta dolore;' and from Helmontius, who says, omne propemodum sanationem morborum, (vulnera itemque ejusmodi chirurgicalia non excipio,) in stomacho ejusque duum viratu sollicitandam: namque sic etiam non raro defectus exteriores interno stomachi remedio tolluntur, alioquin externis pharmacis frustra tentati."—pp. 125—126.

The causes of the failure of *mercury*, in the treatment of some cases of venereal bubo, are investigated with the same ingenuity of reasoning so conspicuous in the preceding sections, and with the same freedom from a blind confidence in the specific properties of this mineral: a confidence which has too often led practitioners to push on its use, without discriminating the peculiarities of cases; and frequently mistaking the deleterious effects of the remedy for the action of the syphilitic virus. Many instances of the alarming effects of mercury in ulcerated bubo of the inguien are given, sufficient indeed to shew that the hazard to the patient, and the distress to the surgeon, have too often arisen by mistaking the consequences of the remedy for the depredations of the morbid poison.

Some years ago we saw a most deplorable instance of this. A man of firm constitution, in the prime of life, contracted chancre near the frænum; this was succeeded by bubo. The bubo suppurated; and while under the influence of mercury, the ulceration spread so rapidly as in about four weeks to reach the navel, completely lay bare the testicles, and extend half way down the thigh. The cause of this being referred

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* The work here cited by Mr. Geoghegan is, *De Sympathia, seu, de consensu partiam corporis humani.* 12mo. Harlaim, 1721.—12mo. Lipsiæ, 1762. *Rega* was a Doctor of Physic and Professor of the Faculty of Medicine in the University of Louvain, in which town he was born, Ann. Dom. 1690. As a practical physician he was much esteemed; and as a Professor of the Practice of Medicine, his reputation was great.

to some peculiar virulence in the syphilitic poison, mercury was considered to be the only remedy. The disease with this treatment grew rapidly worse. It was at length decided, but almost as an experiment, that the use of the specific should be suspended. Under this change of management the enormous ulcer soon assumed a healthy appearance, and by the employment of simple and soothing remedies, with mild tonics, speedily healed.

The treatment of syphilitic ulceration of the fauces is laid down with much precision, and is founded on a practical knowledge of the subject. The following case, inserted in this section, with the observations upon it, we quote, because it contains some very unusual peculiarities.

"In the summer of 1811, I was consulted by a gentleman, who laboured under the venereal disease nearly ten years, without taking any medicine for its removal. The appearances it exhibited were leprous scales covering the face and head, and several parts of the body; an enlargement of the bones of one leg, pains in the bones, and emaciation. The account he gave was: that the disease appeared, at the commencement, on the penis, to which it seemed confined a year; buboes succeeded, and disappeared spontaneously; his throat became sore two years after, and got well on using a common gargle; the soreness returned frequently, and was removed by similar means; during between four and five years, the symptoms were stationary, slight sores on the penis, and tumefaction of it, being the sole complaints; after this time, pains in his limbs, and blotches on some parts of his body, came on, and were the chief symptoms that continued. He had abandoned himself to despair, and concealed the nature of his complaints from his friends, having no view whatever to recovery.—I directed half a drachm of the usual ointment to be rubbed in every night; and after two drachms had been used, the mouth became sore; the medicine was intermitted two nights, and afterwards persevered in, so as to keep up a tenderness of the gums for several weeks. The symptoms progressively abated; the mercury was increased in quantity gradually, and after three months, two drachms per day were used; the course was persevered in four months, during which time he rubbed twelve ounces, and from the first four frictions, the powerful effect of the mercury was uninterruptedly sustained; the fifth month, he took from one to two grains of calomel per day; and, the month following, drank sarsaparilla decoction. He has remained in perfect health two years.

"This is the only instance I ever met of the venereal disease being left to itself a length of time, sufficient to unfold all its destructive powers, unresisted; yet the mischief was not so great as might be expected. It shifted its situation from the throat, without the aid of medicine, and ultimately settled on the surface; with the exception of a diseased state of the bones of one leg, its

ravages made little progress, and it seemed stationary an extraordinary length of time.—It is worthy remark, that this deeply-rooted disease yielded to a small quantity of medicine, and was finally removed by little more than is found necessary for the cure, when of but a few months standing. Such an opportunity of ascertaining the progress and effect of the venereal poison, I believe, seldom occurs, as it is, almost in every case, occasionally restrained by the antidote.

"This case appears to me to warrant the inference, that the effects of the virus, abstractedly considered, are not so destructive as has been imagined; and would incline us to attribute the ravages on the constitution, that are daily witnessed, to the co-operation of contingent circumstances; such as the deleterious effects from the abuse of mercury—irregularities of the patient—influence of the weather, inducing accessary diseases, all conjointly deranging the health, and so enfeebling the constitution, as to favour the progress of the virus."—pp. 173—177.

The last section, "on the use of mercury, so as to ensure its useful effects," contains many precepts, and details of management, highly deserving attention. An appendix, containing observations on stricture in the urethra, and on morbid retention of urine, concludes the volume. The only novelty we observe in this part is the recommendation of the caoutchac catheter for the cure of stricture, in preference to the plaster bougie. The principle of this is, that the plaster bougie becoming soft as it takes the temperature of the part, gives way to the stricture, and becomes deeply marked by the morbid part of the urethra. The elastic catheter resists this impression of the stricture upon it; and therefore more certainly overcomes the contraction. It seems probable, however, that a *bougie* made of the elastic gum would be preferable, and afford a useful instrument between the common bougie and the sound.

The object of Mr. Geoghegan in this useful volume, is to demonstrate (and in this he has very far succeeded) that mercury does much mischief, even in common cases of lues, by being employed in too large a quantity without the necessary cautions, or persisted in after the specific poison is destroyed:—that in other cases, mistaken for syphilis, it is absolutely and directly deleterious:—that the primary symptoms of the venereal disease, chancre and bubo, are often by its immoderate use rendered dangerous and intractable:—and that in supervening diseases, especially of the inflammatory form, it is essential to quiet the morbid commotion of the system before mercury is admissible.

II.

A Practical Account of the Fever commonly called the Bilious Remittent, as it appeared in the Ships and Hospitals of the Mediterranean Fleet; with Cases and Dissections, &c. &c. By W. Burnet, M. D. Physician to the Fleet; late Physician and Inspector of Hospitals to His Majesty's Fleet in that Sea. 8vo. pp. 296. Callow, London.

No disease has been more investigated than fever; but, nevertheless, regarding its nature, and the method of treating it, there have been more revolutions of opinion and of practice, than in any other, in the long catalogue of maladies "that flesh is heir to." Perhaps the most probable reason that can be assigned for this circumstance is, that as in fever no particular local affection is very evident, few dissections of the fatal cases had been made; and thence the most important source for deriving information on the nature of disease being neglected, the theories that were reared, and became the guides of practice, were built upon the basis of fancied hypotheses only, with which both the theory and the practice naturally stood or fell. Within these few years, however, dissections of cases of fever have been more frequent; and, owing to the appearances of local inflammation displayed in these, the use of the lancet, which had been nearly discarded in the treatment of general fever, has been again had recourse to; and, seemingly, with such a degree of success as to warrant its general adoption.

Our author is one of those, who has experienced the good effects of the depleting plan, particularly of blood-letting in fever; and the work before us is the result of an extensive practice, during four successive years, in several varieties of that species of fever, commonly called *the Bilious Remittent.* It is, now, our task to examine this communication of the result of his experience to the Profession and the Public.

The volume is divided into two parts: the first contains the history and treatment of the bilious remittent fever, as it appeared in the ships and hospitals in the Mediterranean Fleet in the years 1810, 1811, 1812, and 1813; the second, "Facts and Observations illustrative of the Nature, Symptoms, and Treatment of Fever in the Mediterranean." Each of these parts we shall examine in the order of their arrangement.

In the history of the bilious remittent fever, which is very minutely detailed, we are informed that it did not generally occur in the fleet during the spring and early summer months, and, with one exception, the author knew of no instance of the crew of any ship being attacked while at sea; "the disease, in its epidemic state, being confined generally to such ships as

are, or have been, refitting in port."—p 3. The disease generally made its appearance about the beginning of July; but the cases of it at this season were less violent than those which occurred in the autumn. The attack was in some cases so sudden, that "the patient, while at his usual work, has dropped down in a state of insensibility:" in other instances, it was accompanied with cynanche tonsillaris; and in the summer and autumnal months it was occasionally preceded by cholera morbus, or diarrhœa.

Besides the ordinary symptoms announcing the presence of pyrexia, the following are those stated by our author, as marking the more formidable attacks of the disease:

"There is often a very considerable degree of redness and tumefaction of the face, the skin having a glossy shining appearance; the flushing of the face frequently extending downward, as far as the superior part of the sternum: the tongue is white or slightly yellow, and commonly moist, with a bad taste in the mouth. There is a sense of uneasiness in the epigastric region, with nausea, and in some patients a vomiting of a bilious-like matter; pains in the joints, back, and calves of the legs, disturbed sleep, and constipation of the bowels, are amongst the symptoms usually observed. The pulse for the most part is full and hard, though not always, particularly where the gastric symptoms are severe; at other times it is oppressed, but rises under the lancet. In its first state, which generally accompanies the severe local affection of the brain, it beats from 110 to 120 in the minute, sometimes upwards of 130, but at this period it is not a very common occurrence. In its second state, which generally accompanies a more advanced stage of the attack, the pulse seldom exceeds 90 or 100, and is not so full; nay, is frequently observed to be slower than natural; there is generally a throbbing of the carotid and temporal arteries, with great thirst and considerable anxiety. The superior parts of the body are sometimes covered with a profuse perspiration, but generally the skin is dry, and the temperature increased; if the disease be advanced, the heat is often pungent, and there is through its whole course a loathing of food. Severe rigors sometimes, but not very commonly, precede the hot stage of the disease." pp 5, 6.

If the disease was allowed to run on for some days, owing to the patient forbearing to make his situation known; or if the most prompt measures were not adopted to remove it; a somewhat different character of symptoms presented themselves.

"The head-ach is still severe, but accompanied by stupor, disinclination to answer questions, and indifference to surrounding objects: the eyes have a duller look than usual, and frequently the preceding inflammatory appearance, has in some measure given way, to a slight yellowness of the tunica adnata, which soon extends to the face and neck, and often, in twenty-four hours from

this time, to the whole body. The tongue is now covered with a thick yellow coat, or is brown and dry in the middle, the edges having a red inflammatory appearance; the prostration of strength is considerable; the anxiety and pain in the limbs great; the uneasiness in the epigastric region is urgent, and there is frequent vomiting of a bilious-like matter, and most harassing singultus: the pulse under these circumstances is commonly much smaller, varying from 100 to 120, and often is more frequent. There is at this time no very considerable increase of temperature, the features exhibiting rather a shrunk and anxious appearance, with occasional partial flushings. In the severe attacks, about the third day, there is often an appearance of a complete remission, but in the evening puts an end to the delusion; an exacerbation takes place, with great increase of all the dangerous symptoms. Unhappily this deceitful period has often been mistaken for a real remission of the symptoms, and both tonics and stimulants have been given, with a view to prevent a recurrence of the paroxysm; but vain, indeed, are all such efforts, they serve but to increase the malady.

"As the disease advances, the pain and uneasiness about the epigastric region, continue to increase. There is now almost constant vomiting; considerable pain upon pressure; great restlessness, with oppression at the præcordia. The abdomen is likewise painful, with frequently thin, black, fœtid, and sometimes gelatinous-like stools."—p. 7, 8.

When the disease terminates fatally, death frequently happens on the third or fourth days, but more generally from the fifth to the eighth. In the early summer attacks, the brain was the organ most affected; during the periodical rains, "the gastric symptoms became severe, but without diminution of the local affection of the head;" (p. 11.) but as autumn advances there is inflammation of the intestines, and occasionally of the lungs. Affections of the liver, dropsical swellings, irregular intermittents, and phthisis pulmonalis, are enumerated as sequela of this fever.

In the next section, entitled "Probable Causes," we were surprised to find that our author appears to have no distinct idea of the difference between predisposing and exciting causes. Thus we are informed, that marsh miasm "has a very considerable share in *predisposing* to an attack;" (p. 13) and, afterwards, "that intemperance in the use of spirits and wine, exposure to the sun, or night-dews after a fatiguing day, are the most powerful *exciting* causes of this disease." (p. 17)

Now, in our opinion, the circumstances last enumerated are the *predisposing* causes, in as much as they produce such a state of the body, either by debilitating it, or otherwise altering the powers necessary for carrying on its healthy functions, as renders it susceptible of being acted upon by the

marsh miasm, which must therefore be regarded as the cause inducing the morbid actions which constitute the disease; or, in simpler language, is the exciting cause of the fever.

That marsh miasm is really the exciting cause of this disease, might be supposed from what has been already stated regarding the seasons, and the situations in which it makes its attack; but the following facts resolve all doubts on the subject. At the head of the harbour of Malta, and that of Mahon also, are some undrained lands, which "during the summer and autumnal months emit very offensive exhalations," affecting the health of the surrounding inhabitants.

"The harbour of Mahon is divided by an island, on which stands the Naval Hospital; ships anchored during the summer or autumn above the Hospital Island, for any length of time, rarely escape, without a number of their men being attacked with fever; while the ships anchored below, are commonly entirely free from it. The Curacoa and Aigle frigates, returning from a cruize, in the beginning of October 1812, the former anchored above Hospital Island, opposite English Cove, the latter below, opposite George's Town; they remained in harbour refitting nearly three weeks proceeding together off Toulon; the Curacoa had thirty-two men attacked with the usual fever, the Aigle not a single man. The crew of the Swiftsure, lying nearly in the same place as the Curacoa, were attacked with a similar disease, as were also the ships' companies of the Undaunted and Berwick, which had refitted at the arsenal.

"In Malta it has always been remarked, that ships fitting at the Dock Yard, situated at the upper part of one of the arms of the harbour, are more subject to attacks of fever, than those lying out at their anchors; and on moving a ship, where it was prevalent, into Beguy Bay, the disease has uniformly ceased*."—p. 15, 16.

In treating of the "Method of Cure," Dr. Burnet divides the operation of the disease into four stages, each of which requires a different treatment. In the first, which comprehends the period from the commencement until the appearance of gastric symptoms, he regards it altogether as a disease purely inflammatory, and trusts to the free use of the lancet and purgatives. He recommends the patient to be placed in a recumbent posture, and the blood drawn from the temporal artery, as it both more immediately relieves the head-ach, and does not produce that great prostration of strength, which generally follows bleeding from the brachial vein. "I have

"* The observation relative to the sewers, flux and reflux in the harbour of Mahon, applies equally here."

often seen," says he, "a bleeding of thirty ounces from the temporal artery, aided by a brisk purgative, put an end to the disease." p. (20.) The bleeding and purgatives must be repeated as long as the head-ach and other symptoms of increased vascular action continue, without any dread of enducing debility; for in cases in which from 130 to 200 ounces were abstracted, instead of great weakness and a protracted convalescence being produced, "the restoration of the patient to perfect health and strength has been most rapid, and relapse has seldom taken place." (p. 25.) To this mode of practice our author conceives, that the cold and tepid affusions may be useful adjuncts; but he deprecates altogether the use of emetics, even when much nausea is present.

In the second stage, or from "the accession of the severe gastric symptoms and yellow suffusion, till the appearance of nervous symptoms," (p. 18.) the same plan, in a more moderate degree, is to be continued, with the addition of blisters, emollient enemas, and the tepid bath, as circumstances may require. But if the disease runs on to the third stage, which is characterized by numerous symptoms indicative of great debility, the depleting plan must be now laid aside, and stimulants employed. These must, however, be of sufficient power merely to allay the irritability of the stomach, and moderately support the system; while attention must still be paid to the daily evacuation of the bowels. The carbonat of ammonia and aromatic confection, are considered by our author as the stimulants best adapted for answering these indications: but, wines, bottled porter, brandy and water, and musk, he has found to be useful under proper restrictions. In the fourth stage, or that of convalescence, when a complete remission is procured, repletion must be cautiously avoided, as nothing is so likely to occasion a relapse.

Such is the outline of the general plan of cure pursued by Doctor Burnet, in the bilious remittent fever, as it occurred in our fleets in the Mediterranean. We have already given our opinion, as to the utility of blood-letting in fever*; and have only again to repeat, that our personal experience does not permit us to advance any opinion on the subject; but we are willing to give credence to the efficacy of the practice, from our view of the nature of the disease according with that of our author, and those who support the depleting plan of cure. As our opinion on this subject originated, and has been confirmed, by the consideration of the morbid appearances observed in

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* See Review of *Mills on Fever—Repository*, vol. i. p. 425.

dissections of fatal cases of fever, we shall give those described by our author in his own words.

GENERAL APPEARANCES ON DISSECTION.

"*External.*—The bodies of such as died during the inflammatory stage of the disease, were in general more slightly tinged with yellow. The yellow suffusion of those who died at a more advanced period, was found of a deeper hue. A dark livid appearance on the shoulders, and extending upwards to the occiput, was common to all. In several, livid blotches on different parts of the body; in a few, large black lines on the abdomen; the scrotum frequently quite livid. Black or reddish blotches on such parts as had suffered compression were common. In some petechiæ; abdomen tense; in a few, swelling and suppuration of the parotids.

"*Brain.*—Vessels generally distended; in many instances completely gorged with blood. The membranes highly inflamed, with often a blood-shot appearance. Depositions of coagulable lymph in different parts, particularly in the circumvolutions of the brain. Adhesions of the hemispheres were common. The ventricles often distended with fluid, sometimes limpid, at others yellow. Membranes of the brain frequently yellow. Substance of the brain of a firm consistence.

"*Thorax.*—The lungs often in a high state of inflammation; at other times, effusion had taken place, and depositions of coagulable lymph on different parts. Adhesions to the pleura costalis were frequent. Pericardium inflamed, and preternatural collection of fluid within that membrane. Diaphragm highly inflamed, with occasionally depositions of coagulable lymph on its surface. Effusion to the extent of several ounces in the cavity of the thorax.

"*Abdomen.*—Liver generally enlarged, but not so commonly, shewing great external marks of inflammation; frequently livid towards the lower edge of its concave side.

"Gall bladder moderately full of inspissated bile.

"Stomach generally more or less inflamed and distended with air, containing a dark coloured matter, adhering at times to its villous coat.

"Intestines bearing marks of inflammation through their whole course, distended with air, and containing a matter similar to that found in the stomach; frequent intussusceptio.

"Urinary bladder seldom distended, at times shewing slight marks of inflammation."—pp. 37, 38, 39.

Eleven cases of the disease, which were under the immediate care of Doctor Burnet, are detailed. In all these the lancet was freely employed: in one of them the quantity of blood abstracted was ninety-two ounces, in another ninety-four, and in each of two others one hundred and two ounces. Two cases of the eleven proved fatal; and on opening the bo-

dies the appearances were sufficiently indicative of a strong inflammatory action having existed, not only in the head, but also in the thorax and abdomen. Four other cases, treated by the surgeon in the Naval Hospital, are given from the hospital books, with a view of elucidating the morbid appearances found on dissection; which corresponded, in the marks of inflammation, with those we have already noticed. The prescriptions for these cases, we are informed, were copied verbatim from the original in our author's possession; but, with what intention, we are unable to form any conjecture, unless to exhibit a specimen of vile latinity; as they throw no light whatever on the nature of the cases. Twelve other cases, which were communicated to our author by some of the surgeons of the fleet, are also detailed.—In some of these the lancet was as freely employed as in those treated by Dr. Burnet himself; and the favourable effects of this practice are sufficiently obvious. We regret the necessity, which our duty imposes, of reprobating the very careless manner in which these cases are described; and the barbarous latin, in which the prescriptions are written. If our author was aware of these errors, by not correcting them, he has injured very much the reputation of his work: if other avocations prevented him from reading over his communications, he should, for his own credit, have employed some friend to have undertaken the task.

The second part of the volume consists of two subdivisions; the first of which contain a very interesting history of the various attacks of the bilious remittent fever, in the Mediterranean fleet, from the year 1799 to 1813, inclusive. It appears to have assumed most commonly those features, which would lead Dr. Mills to class it, under the heads, Cephalic and Hepatic fever, the head and liver being the organs principally affected. By pursuing the depleting plan of treatment, particularly the free use of the lancet, the mortality was comparatively trifling; and the recoveries so rapid, that men labouring under the severest forms of the disease, in the worst season of the year, were enabled to return to their duty in the course of two or three weeks. In the report of a Mr. Allen, regarding the patients received into the Naval Hospital at Malta, in July 1812, is the following statement.

"Not one has died of fever during the month (one hundred and thirty-one were received, two hundred and twenty-three were discharged cured!!) When patients, afflicted with this fever, were left without medical aid, which was the case in one or two instances, *they became deeply tinged yellow; the fever was long protracted, and extreme debility succeeded; but when early bleeding was resorted to, it completely prevented those symptoms*."—p. 169.

On another occasion the same gentleman says: "Out of one hundred and four from the Trident, only one died."—p. 173.

This success is strikingly contrasted with the result of the ordinary mode of treatment; which, even in those cases that were rescued from the immediate danger attendant on the disease itself, left the habit in such a state of debility, as occasioned either very protracted convalescence, or rendered it liable to attacks of phthisis pulmonalis, and other complaints. To shew the extent of these unfortunate results, in one ship alone, our author observes, "that, on a common calculation, this fever cost the Temeraire's ship's company at least "eighty men, comprising deaths and invalidings."—p. 166.

The following account by the assistant-surgeon of the Invincible, gives a concise description of the manner in which the fever made its attack; but, we extract it chiefly to shew the nature of the practice employed, before the introduction of the free use of the lancet.

"The following is the account given by the assistant-surgeon of the Invincible:—

"This fever was ushered in with cold or shivering, followed by heat, quick pulse, great thirst, pains all over the body, particularly severe across the forehead; great weight and oppression at the præcordia, accompanied with bilious vomiting, in some with white and furred tongue, which, when put out, had a tremulous kind of motion; in others, it commenced with a slight bowel complaint. The urine in general was high coloured; and the stools, in colour, resembled mercurial ointment. The eyes, in a few, appeared inflamed, and painful on motion; delirium began sometimes on the first or second day, or later; yellow tinge generally about the third or fourth day, and shewed itself first in the conjunctiva. Singultus was a very common, but not fatal symptom; irritability of stomach not very prominent, it appeared but in few. Remissions in some strongly marked; after the third or fourth day symptoms of debility made their appearance, and increased rapidly. The first thing done, in almost every case, was to clear the primæ viæ by an emetic and cathartic, and, afterwards, to exhibit calomel, so as to keep the bowels open, and bring the system under its influence. Bark and wine were given to support the patient, and when the remissions were marked, in considerable doses. Of all those who died, not one of their mouths was affected by mercury*. For topical affections, blisters were generally employed. It seemed to affect the young and plethoric more than others."—p. 164, 165.

"* When I visited the sick of the Invincible, I do not recollect seeing more than one patient, whose mouth was affected with mercury, and he was taken ill after my arrival.

Upon the whole, if we admit the truth of the statements brought forward by Dr. Burnet, we cannot refuse to allow that the comparative success of the two plans of treatment, fully authorizes the encomiums he bestows on the free abstraction of blood in this description of fever.

The second division of this part of the volume contains some account of the Gibraltar and Carthagena Fevers. Our author has brought together sufficient evidence to prove, that the fever which swept away so large a proportion of the inhabitants of both these places, was not contagious; but generated by marsh miasm; and was, in fact, the same species of disease that is described in the former part of the volume, or the bilious remittent. It is remarkable that in the commencement of the epidemic in both places, the disease was regarded as of an inflammatory type, and blood-letting, and purgatives employed with advantage; yet, merely on the supposition that it must be contagious from it's rapid extension, these remedies were laid aside, and emetics, calomel, bark, and brandy substituted in their stead. Even those who witnessed the beneficial effects of a free use of the lancet, were borne away by the stream of opinion, which ran strongly against the depleting plan of treatment:—so much does the authority and opinion of the many, however ill-founded, bias the judgment, and obscure the understanding of individuals.

To make his readers acquainted with the Spanish physicians, as to the origin and nature of the Carthagena fever, our author has published a letter, which was addressed to him on the subject, by Doctor Riseuno, who practised in Carthagena while it raged there; and has given, also, an extract from the *Economico Politico*, a Carthagena Journal, dated August 1812, which shews the opinions held by the pupils of Aregula, and the treatment of the fever adopted by them.

All the Spanish physicians agree in supposing that the disease is the same as the *Bulam* fever of the West Indies, the *Typhus icterodes* of Sauvages; and, that it was carried to Carthagena, at the various periods in which it has prevailed there, by vessels coming from other places afflicted with it; and, consequently, that it is highly contagious. The following is the plan of treatment recommended by Aregula, and followed by his pupils.

" As soon as any person, of either sex, may be seized with the first symptoms of yellow fever, they ought, without loss of time, to procure six or eight ounces of good bark, and without delay, or, at all events, within six hours of its first attack, they should begin to take a dose of at least half an ounce of the bark; which quantity should be repeated every two hours, in whatever manner may be most agreeable to the patient: this method ought

to be persevered in with exactness for the first forty-eight hours after the attack.

"It is, however, necessary to remark, that this method should be accompanied by a free use of vegetable acids, either in draughts, or in combination with the bark itself; or recourse should be had to the mineral acids, where the circumstances of the patient render it necessary; for it is evident, that these medicines last mentioned, with the bark, are the most powerful that can be used, with a view to overcome this dreadful scourge of humanity. To these medicines must be added a proper regimen of nourishing substances, consisting of panada, chicken broth, or veal broth, as may be judged proper by the physician.

"Finally, I ought perhaps to assure you, that the bark, given in the aforesaid quantities of six and eight ounces, will infallibly cure this dreadful disease during the first two or three days, provided the requisite conditions be attended to in its exhibition; namely, that the aforesaid quantity of bark ought to be used and retained on the stomach during the first forty-eight hours after the attack; and secondly, that its exhibition must take place as near the commencement of the attack as possible."—245, 246.

It is almost unnecessary for us to state, that Dr. Burnet has successfully combated these opinions, both as to the origin of the disease, and the method of treating it.

The volume concludes with an appendix containing a neat tabular statement of the "deaths and recoveries in the 7th Royal Veterans, in the fever of 1810, at Gibraltar;" the "copy of a case of fever, extracted from the medical journal of H. M. ship Conqueror:" and a "Case of Carthagena fever, treated on board H. M. ship Leyden."

Such is the volume which Dr. Burnet has presented to the profession. We are decidedly of opinion, he has made out his case; and that there can be one sentiment only as to the propriety of the practice he recommends in the disease of which he treats. The extent to which it is carried, in some particulars, is indeed sufficient to startle practitioners, who have never seen the cockpit of a man of war: although we are willing to allow that some difference is undoubtedly necessary in prescribing for the hardy tar and the luxurious inhabitants of a great city. In p. 168, for example, we are told—"When the febrile symptoms were longer protracted, we carried our bleedings as far as seven or eight pounds, with eminent advantage!" and in p. 60.—"After the bleeding he was put into the warm bath, and a blister of *a foot square* applied to the epigastric region!"

We wish we could say any thing in favour of the style of the work: but it is ill written; and the correction of the press appears to have been altogether overlooked. Indeed we have seldom seen any work with so many errors, altogether unno-

ticed as *corrigenda* by the author. Thus in page 16, the words, "*of detail*," should be inserted after the word, "*minuteness*," to make the sentence intelligible; and for the same reason, in p. 18, l. 10, the word *that* should be added, after *than*: in pages 41, 42, 46, *secundæ* is put instead of *secunda*; in p. 42, 67, *mistura* for *misturæ*; p. 46, 48, *salinæ* for *salina*; and the reverse *salina* for *salinæ*, in p. 65, 67, 88, 89, 90, 91: in p. 49, 84, 115, 125, 127, *quassia* for *quassiæ*: p. 49, 73, *magnesia* for *magnesiæ*; *sanguis* for *sanguinis* twice in p. 64, and again in p. 97: in p. 64 and 70 we find *misturam catharticam* ℥iv.: p. 68, 125, 127, *omittentur* for *omittetur*:—*applicetur* for *applicentur* in p. 72, 80, 111, 117: *nitras* for *nitratis*, p. 73: *opium* for *opii*, p. 85: *potio* for *potionis*, p. 98: *continuetur* for *continuentur*, p. 111, 112, 127: *spacium* for *spatium*, p. 112: *c. vin. rubrum*, twice in p. 119, and as often in 120: *manna* for *mannæ*, p. 284; and *v. nitratis potassæ*, in p. 286. We lament the obligation, which our duty as Reviewers imposes of noticing these faults; but, they are certainly unpardonable to such an extent in a work professedly scientific.

PART III.

SELECTIONS.

Dr. William Harvey.—"Previous to the great fire (of London) there was a statue of Dr. Harvey in his doctorial robes, at the College of Physicians. Over this statue was the following inscription:—Gul. Harveus, natus A. D. 1578, Apr. 2, Folkstone, in com. Cantii, &c. Upon the pedestal was—Gulielmo Harveo, viro monumentis suis immortali, hoc insuper Coll. Med. Lond. possuit. Qui enim sanguis motum (ut et animal. ortum) meruit esse stator perpetuis.

In a letter written by one of his contemporaries, Harvey is described "as always very contemplative, and the first that was curious in Anatomie in England. He made many dissections of froggs, toades, and of a number of other animals, and had various observations upon them, which papers, together with his goods, in his lodging at Whitehall, were plundered at the beginning of the Rebellion; he being for the Kinge, and with him at Oxon; but he often sayd, that of all the losses he sustained, no griefe was so crucifying to him as the losse of these papers, which for love or money he could never retrieve or obtaine. When K. Ch. 1st, by reason of the tumults left London, he attended him, and was at

the fight of Edge-hill with him; and during the fight, the Prince and the Duke of York were committed to his care.

"After Oxford was surrendered, which was the 24th July, 1646, he came to London, and lived with his brother Eliab, a rich merchant, on ——— hill, opposite to St Laurence, Poultry, and at his brother's house, at Roehampton. About 1654 he resided with the same brother at Cockaine-house, afterward (in 1680) the Excise-office, where he was wont to contemplate on the leads of the house, and had his several stations, in regard to the sun, or wind. He had a house heretofore at Coombe, in Surry, a good air and prospect, where he had caves made in the earth, in which in summer time he delighted to meditate. He was pretty well versed in mathematiques, and had made himself master of Mr. Oughtred's Clavis Mat: in his old age. His chamber was that room which is now the office of Elias Ashmole*, where he dyed: being taken with the dead palsey, which took away his speech. He died worth 20,000*l.* and left his old friend Tho. Hobbes 10*l.* as a token of his love.

"He had been physitian to the Lord Ch. Bacon, whom he esteemed much for his witt and style, but would not allow him to be a great philosopher. Said he to me, "he writes philosophy like a Ld. Chancellor," speaking in derision. About 1649 he travelled again into Italy, Dr. George, now Sir George Ent, then accompanying him. At Oxford, he grew acquainted with Dr. since Sir Ch. Scarborough, then a young physitian, in whose conversation he much delighted.

"He was, like all the rest of his brothers, very cholerique; and in his younger days wore a dagger; but this Dr. would be apt to draw out his dagger on every slight occasion. He was not tall; but of the lowest stature, round faced, olivaster (like wainscott) complexion; little eie, round, very blak, full of spirit: his haire was black as a raven, but quite white 20 yeares before he dyed. He came several times to our College (Trin.) to George Bathurst, B. D. who had a hen to hatch egges in his chamber, which they daily opened to see the progress and way of generation. He wrote a very bad hand. I have heard him say, that after his booke on the Circulation of the Blood came out, he fell mightily in his practice, and 'twas believed by the vulgar, that he was crack brained; and all the physitians were against his opinion, and envied him; with much adoe, at last in about 20 or 30 yeares time, it was received in all the Universities in the world, and as Mr. Hobbes says in his booke *de Corpore*, he is the only man, perhaps, that ever lived to see his own doctrine established in his life time.

"He understood Greek and Latin pretty well, but was no critique, and he wrote very bad Latin. The *Circuitus Sanguinis*

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* Though this is not very clear, it seems to have been a room in Cockaine-house, and probably at this time the Excise-office.

was, as I take it, donne into Latin by Sir George Ent, as also his booke *de Generatione Animalium*, but a little booke in 12mo. against Riolan, wherein he makes out his doctrine clearer, was writt by himselfe; and that, as I take it, at Oxford. He was physitian to and a great favourite of the Lord High Marshall of England, Tho. Howard, Earl of Arundel and Surrey, with whom he travelled as physitian in his Ambassade to the Emperor ———— at Vienna, Anno Domini 163—. Mr. W. Hollar (who was then one of his excellencies gentlemen) told me, that in his voyage, he would still be making of excursions into the woods, making observations of strange trees, and plants, earths, &c. and sometimes like to be lost.

"He was much and often troubled with the goute, and his way of cure was thus: *he would then sitt with his legges bare, if it were frost, on the leads of Cockaine-house, putt them into a payle of water, till he was almost dead with cold, and retake himself to his stove, and so 'twas gone.*" The report of Harvey having destroyed himself by large doses of opium is positively denied. "The manner of his dying was really, and bona fide, thus, viz. The morning of his death, about 10 o'clock, he went to speake, and found he had the dead palsey in his tongue; then he sawe what was to become of him, he knew there was no hope for his recovery, so presently sends for his young nephews to come up to him, and made sign to Sambroke his Apothecary, in Black-Fryars, to let him blood in the tongue, which did little or no good, and so he ended his days."—*Aubrey's MSS. in the Ashmolean Museum.*

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

PHYSIOLOGY.

Since the time of Haller, the opinion that the intestines of the fœtus in utero are filled with the liquor amnii has been pretty generally admitted; although not under the idea of its receiving nourishment from this fluid; but, there still exists a diversity of opinion, regarding the manner in which the hollow tubes of the thoracic viscera are kept distended, during the period of uterine existence. In the *Bulletin de la Faculté de Medecine de Paris*, for September 1813, M. Beclard has published the following observations on this curious point in physiology. His paper is intitled, "*Recherches qui semblent prouver que le fœtus respire l'eau contenue dans l'amnios.*"

After prefacing his remarks, by observing that this subject had occupied the attention of Haller, and several other celebrated anatomists and philosophers, M. Beclard proceeds thus. "If a still born fœtus be examined by dissection, the trachea and bronchiæ are perceived to be filled with a liquid resembling the liquor amnii. Infants which are born weakly, and with the face upwards, discharge a considerable quantity of fluid for a few moments after they first respire the air: it is even often necessary to lay them on their sides to promote this discharge; and sometimes to clear it from the mouth and pharynx, by brushing these out with a feather. But when an infant is born with the face downwards, and is strong, it almost instantaneously frees itself of this water. I had once occasion to perform the cesarean operation on a female who had just expired; the mouth, the pharynx, the trachea and bronchiæ of the fœtus, which was also dead, were full of water. I have frequently opened the females of animals heavy with young; and, after having opened the uterus, and compressing the necks of the living fœtuses while yet in the amnions, on opening the trachea and bronchiæ, have found these passages filled with a watery fluid resembling that of the amnion. Finally, to remove every doubt on the subject, I have injected water, coloured black with ink, through a small orifice into the amnion of the fœtus of a bitch; after a few moments I have grasped the neck of a fœtus, who still lived, and on opening it have found the black fluid in the trachea and bronchiæ.

"In deliveries by the feet, all accoucheurs must have, undoubtedly, seen and felt the evident inspiratory movements which a vigorous fœtus makes, when the head, the neck, and the superior members are still contained in the uterus and vagina.

"When a female big with young is opened, if the uterus be carefully cut up, any one may perceive through the membranes and the water of the amnion, very distinct respiratory movements, consisting in the opening of the mouth, and the dilatation of the nostrils, while at the same time the sides of the thorax are elevated. These movements are repeated at regular intervals; but more slowly, in general, than the respiratory movements of the extra-uterine life of the same animals; and the intervals become more extended, according as the progressive contractions of the uterus render the circulation between the mother and the fœtus more and more imperfect. They very much resemble the distant and deep repiratory movements of a very weak newly born infant, in that state which is called asphyxia infantorum (asphyxie des nouveaux nés.) The resemblance between these two states is very striking.

"I cannot determine whether, during the mechanical phe-

nomena of respiration, which the fœtus certainly displays, any chemical action is exerted between the water of the amnion and the blood which traverses the lungs in a proportion augmenting as the period of delivery approaches.

"As to the introduction of the water into the digestive passages, I am enabled to add some facts to those brought forward by Haller in proof of its reality.

"I have examined with Professor *Chaussier* the meconium, and have found in it hairs resembling those which are attached to the skin of the fœtus in the last period of its existence in the uterus: and, on dissecting the body of a fœtus, the cavity of the intestine of which was in one part obliterated, I found that the meconium was contained in that part only of the gut which was above the obliteration, while the part below it, which was very straight, contained only a sweetish, colourless mucous matter."

Were we disposed to comment on the foregoing paper, it would be no difficult task to expose the absurdity of supposing, that any function analagous to pulmonary respiration exists during the uterine life of the fœtus: and, although we may allow that the liquor amnii fills up the cavities of the trachea, the bronchiæ, and the abdominal viscera, yet, it is not probable, that in the one situation it is respired, or in the other contributes to the nourishment of the fœtus. But, in the present instance, we shall leave our readers to form their own opinions of the subject, from the observations advanced by M. *Beclard.*

CHEMISTRY.

II.—Professor Hildebrant, of Erlangen, has published the following observations on the analysis of the human bone*.

"MM. Fourcroy and Vauquelin, in their memoir upon bone, have made it evident that human bone contains no sensibly quantity of magnesia. M. Berzelius, on the contrary, asserts that he obtained phosphate of magnesia from the bone of a man. His analysis furnished the following results:

Phosphate of lime	81.9
Fluat of lime	3.0
Lime	10.0
Phosphate of Magnesia	1.1
Soda	2.0
Carbonic acid	2.0
	100.0

* The original paper appeared in Schweigger's Chemical Journal; but, as we have not that work in our possession, our article is extracted from a translation of it in the *Annales de Chimie* for November 1813.

" It must be recollected, that MM. Fourcroy and Vauquelin believed that the difference between the bones of the lower animals and man depended on the following circumstance; that although the cerealia which form part of the food of men contains magnesia, yet, the phosphate of magnesia in man exists in his urine, and is found in his urinary calculi, while the urine of the lower animals does not contain any of it; and their urinary concretions are composed of phosphate of lime.

" The opinion of Berzelius being opposed to the physiological observation of Fourcroy, is too important not to demand particular attention.

" Berzelius himself acknowledges that he did not find any magnesia in one hundred grains of calcined bone, analysed according to the method of Fourcroy; that is to say, by pouring ammonia into a solution of bone acted on by the muriatic acid, and by treating it with caustic potass, and then by means of acetic acid. The following is his own process:—One hundred and fifty grains of bone were boiled, with fifty grains of acetate of lead dissolved in two ounces of water. When the liquor had lost altogether the taste of acetate of lead, it was decanted and evaporated to dryness; the residue was then mixed with sulphuric acid, and exposed to a red heat in order to disengage the acetic acid; the calcined matter ought to have consisted after this of sulphate of lime and sulphate of magnesia. In effect, the water with which it was washed, had acquired a bitter taste, and yielded by evaporation some confused crystals of sulphate of magnesia. These crystals being redissolved in water, and the solution mixed with ammonia, the phosphate of soda formed in it a precipitate, which, after calcination, proved to be an ammoniaco-magnesian phosphate. Such, in a few words, is the method which was employed by M. Berzelius.

" However much I esteem the labours of Berzelius, whose ardent activity has for some years past greatly enriched Science, I must acknowledge that this analyse has not convinced me of the existence of magnesia in human bone. I doubt also whether the method of analysis employed by Berzelius answered the intention, because double decompositions are always imperfect, and because the small quantity of oxide of lead which is here found combined with phosphoric and sulphuric acid, may be confounded with magnesia on account of its insolubility in water. I therefore prefer Fourcroy's method of analysis, and by employing it have made the following experiments:—

" 1. To three ounces of concentrated nitric acid, one thousand grains of calcined bone of the thigh of a man were gradually added. At the end of five days, double the quantity of water being added to this mixture, a group of crystalline masses were formed; and by the addition of a larger portion of water, the whole was dissolved, except some traces of carbon.

"2. Ammonia added to the decanted clear solution produced a light white crystaline precipitate, which, after being washed and dried, weighed 1103 grains. Let us designate it by the letter A.

"3. This precipitate was digested for several days in a solution of caustic potass, and heated to such a degree that the liquor at one time boiled.

"4. The alkaline liquor being decanted, was saturated with muriatic acid, and then mixed with a solution of muriate of lime, which precipitated some phosphate of lime.

"5. The precipitate A thus deprived of a part of the phosphoric acid, being washed and dried, weighed no more than 780 grains, which were heated for some time with eight ounces of distilled vinegar.

"6. The acetic acid decanted, and again added to the washings of the precipitate, was evaporated to an ounce. In this liquor, while boiling, the carbonate of potass formed a precipitate, which weighed, when dried, 10,5 grains: I shall call it B.

"7. I poured upon this precipitate, B, half an ounce of water, sharpened with fifteen drops of sulphuric acid, and heated the mixture for some time. The decanted liquor was slowly evaporated; and on cooling it deposited some crystals of sulphate of lime. The mother water of these crystals contained no magnesia, but rather lime; of which I satisfied myself by means of the oxalic acid.

"The bone of a woman was treated in a similar method; and the result demonstrated the absolute absence of magnesia.

"From the result of these experiments, therefore, it appears that human bone contains no magnesia."

III.—In the first volume of the Memoirs of the Imperial Academy of Sciences of St. Petersburg, M. Smolousky has published an analysis of the tubers which are found attached to the roots of the field horse tail, *equisetum arvensis.* His paper* contains a full description of this species of equisetum, as well as the chemical examination of the tubers; but as the plant is well known, we conceive it is unnecessary to transcribe more of his description than relates to the situation and appearance of the tubers.

These tubers are in size nearly as large as a hazle-nut, and are situated on the joints of the root. The shell is coriaceous, blackish, and rough, studded, with unequal convex or rather flattish tubercles; and covers a fleshy, somewhat succulent, white and sweet parenchyma, which when dried assumes a yellowish hue. When the tubers are decorticated and reduced to powder in a mortar, this parenchyma is found to possess

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* It is intitled *Descriptio botanico-chemica Equiseti Arvensis.*

properties very similar to those of wheaten flour. The following are the experiments by which Smolousky ascertained this fact. The first experiment regards only the drying, decortication, and conversion of the tubers into flour.

"*Experiment* 2. Two drachms of the flour of the equisetum enclosed in a piece of linen were wrought between the fingers, for a considerable time, in pure cold water; fresh portions of water being added at intervals, until the last quantity came off perfectly free from colour. The different portions of effused water, resembling whey in colour, were then put together in a vessel, and left at rest. After these repeated washings, a glutinous substance, greatly resembling that obtained from wheaten flour, of a light grey colour, tenaceous, and weighing fifteen grains, remained in the linen.

"*Experiment* 3. This *gluten*, or glutinous part of the flour of the equisetum arvensis, or vegeto-animal matter, was not soluble in cold water, nor in rectified spirit of wine, nor ether; but, when exposed to the air, dried into a mass resembling horn. When boiled for some time in water, it coagulated like albumen.

"*Experiment* 4. A sufficient time having elapsed for the fæcula procured by washing the powder of the decorticated tubers to subside, on pouring off the supernatant water, and again washing the deposit, and drying it in a moderate temperature, twenty-two grains of a very pure white starch were procured.

"*Experiment* 5. This starch when dried agreed in its properties with common starch; being softish to the touch, friable, easily pulverised, crepitating when pressed between the fingers, soiling whatever it touched, inodorous, and insipid. It was insoluble in cold, or in tepid water, or in spirit of wine; but, with boiling water, it was formed, by stirring, into a gelatinous mass, which acquired the consistence and transparency of horn, when exposed for some time to the air; redissolving, however, again and again in fresh portions of boiling water.

"*Experiment* 6. The water of the different washings from which the starch had been separated, being evaporated to the consistence of syrup, a brown coloured matter was obtained, which possessed all the properties of a saccharine principle. The nutritive qualities, therefore, of these tubers must be admitted to be considerable; a fact which is verified by the condition of the hogs in the country, who dig up these tubers with their snouts, and soon fatten on them. The peasants also, who inhabit the villages in the vicinity of Moskwa, in the summer, and on festival days, carefully search out the plants of the *equisetum arvensis*, and, digging deep into the ground for the hidden tubers, decorticate and eat them as exquisite delicacies."

Smolousky concludes his paper by observing, that as the starch extracted from these tubers is freer from shining or micatious particles than that extracted from the potatoe, he is of opinion that it is better fitted for preparing hair powder (pulverem cyprium) than potatoe starch. For this purpose we think it might be easily propagated in this country, in places where nothing else can be cultivated; and the wheat employed in the preparation of this remnant of barbarian luxury be thus thrown into the food market.

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

Lecture xiii. *On Secretions.* By Professor Brande, *at Apothecaries' Hall.*

Mr. Brande delivered his concluding lecture at Apothecaries' Hall on Monday the 7th of June. It consisted of a brief review of the former parts of his course relating to physiological subjects, and of some observations upon the function of secretion.

In the lectures on digestion, respiration, and perspiration, an attempt had been made to trace the formation of the blood, and to expose the processes by which that important fluid is perfected, so as to be fit for the various important purposes to which it is subservient.

By the operation of the fluids of the stomach and small intestines, our food is converted into chyme, and chyle. The chyle is taken up by the lacteals, and conveyed into the venous system, where it mixes with the blood, and is carried through the lungs. By respiration this mixture of venous blood and chyle becomes arterial blood, that is, the chyle disappears, and carbon is carried off in considerable quantities. It had been proved too that some similar changes, though to a less extent, were effected by the function of perspiration. The only remaining inquiry related to secretion; and although the investigations into this very intricate function had hitherto terminated unsuccessfully, it had nevertheless occupied the attention of men eminent in physiological science. Although, therefore, Mr. B. would detain his audience very shortly upon the subject, he did not think it right entirely to pass it over in silence.

Mr. B. then alluded to the mechanical texture or anatomy of the parts chiefly concerned in secretion, which sometimes was apparently effected by simple means, but in other cases required an apparatus so complex, and at the same time so minute, as to have foiled the anatomist in discovering its precise mechanism.

Mr. B. arranged secretions under two heads:—In one he

classed those which appear as *separations* from the blood, or *educts*;—in the other, those which are entirely different in their chemical nature from any thing existing in the blood, and which, therefore, are *products*. The lubricating and serous fluids of different surfaces and cavities of the body belonged to the former division; to the latter, milk, bile, urine, and several other secretions, which obviously present themselves. We were also to recollect that muscular fibre, bone, &c. &c. were in strict propriety to be ranked among the secretions; for Nature had supplied a means of their constant renovation and production from the blood, from which too they were originally formed.

Having dwelt upon these subjects, Mr. B. proceeded to mention the several attempts that had been made to account for the cause of secretion. It had been attributed by the older physiologists to the structure of the glands. They supposed that blood urged through small and contorted vessels was resolved into the secretions, the varieties of which they regarded as dependent upon the different sizes and forms of the vessels. But no hypothesis of this kind could account for the production of new substances, which alone can result from chemical change, and this the blood must doubtless suffer in the glands. How these chemical changes are effected is quite unknown; but that the nerves are materially connected with them, has been amply proved by experiment. If, for instance, the nerves supplying a gland be divided, the secretion is immediately put a stop to: if the nerves be injured, the secretion is modified. Nothing is more common than the secretion of turbid alcaline urine in cases of injury of the spine—whereas the urine in a healthy state is acid and clear—and in a variety of nervous affections the secretions are remarkably influenced, especially in hysteria.

Mr. B. then alluded to experiments made by Sir E. Home, Mr. Brodie, and himself, in illustration of the foregoing statements. It had been supposed that electricity was concerned in secretion, and the researches of Sir H. Davy, by which the chemical energies of that agent had been brought to light, as well as the peculiar structure of certain parts of the nervous system, were highly favourable to such an idea; but it as yet remained unsupported by any direct experiments.

That peculiar arrangements of animal substances were capable of producing electricity, was demonstrated in the torpedo and gymnotus, and in them the electrical organs are remarkably connected with the nervous system; but hitherto the cause of secretion had eluded the researches of the physiologist.

Mr. B. in concluding briefly remarked, that it might be thought, in giving a course of lectures on Materia Medica, that he had, in treating of the several functions, which formed the contents of his last lectures, deviated from the subjects that appeared to be immediately connected with that science. But he conceived that Students ought, before they could become well acquainted with the practice of physic, first to have a perfect knowledge of the physiology of the human body: without which it would be impossible to

understand either the nature of diseases, depending on any derangement of its functions, or to apply with success, the remedies which the Materia Medica afforded, for the cure of them.

In the next course of lectures he intended very fully to enter into the practical part of the Materia Medica, to which, the present, from having been mostly theoretical, would form a suitable introduction.

The next course of Mr. Brande's lectures will not commence till the Autumn.

A METEOROLOGICAL TABLE,

From May the 21st, to June the 20th, 1814,

Kept at *Derby,* Lat. 52°: 58′ N.—Lon. 1°: 30′ W.

M	D	Therm. Morn.	Therm. Day.	Barom.	Hyg.	Wind.	Rain.	Remarks, &c.
	21	42	53	29 .87	428	ENE		Dull
S	22	41	56	.79	503	N by E		Light Clouds
	23	39	55	.60	492	N	.36	Rain, Light Clouds
	24	43	54	.63	410	N by E		Dull
	25	41	56	.76	440	N		Dull
	26	39	58	.87	457	W		Dull
	27	36	63	.79	426	SSE		Clouds
	28	39	66	.66	509	S		Fine
S	29	45	64	.69	493	WNW		Fine
	30	42	66	30 .00	492	WNW		Fine
	31	46	57	.00	435	N by E		Dull, Dew
	1	43	51	29 .92	424	E by S	.08	Dull and Rainy
	2	42	49	.85	396	NE	.03	Dull and Rainy
	3	46	48	.68	300	NE by N	.10	Dull and Rainy
	4	43	47	.81	310	NNE	.15	Dull and Rainy
S	5	43	53	30 .03	369	NE	.02	Dull
	6	43	51	.06	373	ENE		Dull
	7	43	51	.00	377	ENE		Dull
	8	43	58	.00	400	N		Clouds
	9	39	64	.00	485	ESE		Fine
	10	40	64	.01	492	ESE		Fine
	11	42	65	29 .92	480	E		Clear
S	12	42	51	.90	298	NNE	.37	Rainy, Dull
	13	47	5[illegible]	.96	324	ESE	.16	Rainy, Dull
	14	54	74	.96	378	S	.14	Rainy, Dull, and Sultry
	15	59	74	.79	310	W	.47	Rainy, Light Clouds
	16	51	64	.84	413	WSW	.08	Light Clouds, Showery
	17	47	61	.99	393	W by N		Dull
	18	48	61	30 .00	356	W		Dull
S	19	55	60	29 .80	373	NW	.24	Rain, High Wind
	20	46	57	.70	375	W		Dull, High Wind

Rain fallen in May, 0.98 inches.

* Erratum.—In the last report of the Barometer on May 14th, for 30.98, read 29.98 inches.

A METEOROLOGICAL JOURNAL,

From the 21st of May, to the 20th of June 1814,

KEPT AT RICHMOND, YORKSHIRE,

NW from London.

D.	Barometer. Max.	Barometer. Min.	Therm. Max.	Therm. Min.	Rain Gage.	Winds.	Weather.
21	29 64	29 57	57	37		ENE..	1 Cloudy..
22	29 50	29 40	55	35	.15	N...	1 S...3 R..
23	29 33	29 33	53	40	.39	NW..N..	1 S..and Sh. of Sn..3 R...
24	29 43	29 42	55	37		N...N..	1 Cy.. 2 S..
25	29 51	29 49	57	37		N..E..	1 S..
26	29 55	29 53	63	35		NE..SE..	1 3 S.. 2 Cy.. 4 Moonsh...
27	29 42	29 37	63	42		SE..	1 3 S.. 2 Cy.. 4 Moonsh..
28	29 35	29 35	64	41		Vble.	1 2 4 Cy.. 3 S..
29	29 62	29 52	69	40		W..	1 S...
30	29 76	29 75	64	42	.01	NW..NE..	1 3 S.. 2 R. 4 Cy..
31	29 81	29 75	55	30	.01	NE..	1 3 Cy.. 2 R. 4 Moonsh...
1	29 67	29 61	63	40		SE..	1 S.. 3 Cy..
2	29 61	29 57	66	43		E.	1 Cy...
3	29 57	29 57	53	41		ESE..	1 Cy...
4	29 70	29 63	51	40		N..	1 Cy....
5	29 81	29 81	60	40		N..	1 Cy.. 2 S..
6	29 84	29 83	64	41		E by N..	1 4 Cy.. 2 3 S.
7	29 83	29 81	60	40		NE..E..	1 3 4 Cy.. 2 S.
8	29 80	29 78	60	37		E..NE..	1 Cy.. 2 S...
9	29 80	29 78	60	40		E.NE.	1 S....
10	29 79	29 76	67	37		ESE..	1 Cy.. 2 S...
11	29 70	29 60	64	44		SE..	1 S...
12	29 69	29 65	59	42	.03	ESE..	1 S. 2 R. 3 C..
13	29 67	29 67	65	48	.10	SE..	1 2 4 Cy. 3 R..
14	29 64	29 52	83	61	.13	SW..	1 S.. 4 R..
15	29 52	29 47	77	49		SW..SE.W..	1 3 S.. 2 Cy.. Th.. 4 St..
16	29 62	29 57	67	44		SW...	1 Cy.. 2 S.. Sh. 4 St...
17	29 70	29 70	66	47		WNW...	1 S..
18	29 73	29 48	73	53	.08	W..	1 Cy.. 2 S. 4 R..
19	29 43	29 39	65	43		SW..W....	1 Cy.. 2 S...
20	29 42	29 30	65	47		WbN...NW...	1 S... 3 Cy..

Observations on Diseases at Richmond.

The weather has been very cold for the season till the 14th of June, when it suddenly became hot, attended with some rain. Vegetation, which had made little progress for the last two months, is now going on rapidly. Though the weather seemed so unseasonable, yet the district was remarkably heathy. A few cases of Cynanche Tonsillaris, and Spasmodic Cholic, (one of which latter proved fatal,) were the only diseases that appeared to be influenced by the state of the atmosphere. Since last report the Measles have spread over the whole town, but they are so peculiarly mild, that there has not been as yet one fatal case.

A REGISTER of the DISEASES of LONDON between May 20th and June 19th, 1814, for the London Medical, Surgical, and Pharmaceutical Repository.

DISEASES.	1 S. W.	2 S.	3 S. E.	4 E.	5 N. E.	6 N.	7 N. W.	8 W.	9 Surry sideW	10 Surry sideE.	11 Hamp Highg	No. of Cases.	Fatal.
Anasarca	1	1	2	2	6	3	5	1	3	2		26	2
Ascites	2	2	1			2	5		4			16	3
Asthma	10	11	2	1	14	7	10	1	5	1	3	65	9
Acne	2				1	1		1	2			7	
Apoplexia		1		3	1	1			2	4	1	13	
Aphtha		2	1	2	4	1			4		3	17	1
Amenorrhœa	13	4	1		2	3	4	1	5			33	
Asthenia	12	15		9	16	2			11	5	3	73	[illegible]
Abortio	1	1		1	2	2	3	2	3	4		19	
Bronchitis acuta	5					4	3	5	1		1	19	1
——— chronica	2				1			1	3		2	9	1
Cancer	1				1		1	1			1	5	
Chlorosis	7	3		5			2		2		7	26	
Cholera	9	7	2		7			8	5	2	2	42	
Chorea	2		1									3	
Cephalalgia	12	6	4	5	14	6	10	2	6	7	2	74	
Colica		12	4	2	1	3	1	4		6		33	
Catarrhus	42	15	29	21	19	13	41	48	16	6	10	260	
Convulsio			1		5				2	3		11	2
Carditis				1						1		2	1
Cynanche Tonsillaris	9	6	4	7	16	7	12	22	12	5	4	98	
——— maligna	1	1	1			8	1	1	4			17	2
——— Trachealis								1		1		2	1
——— parotidea	2	2			1	2		2	3	1		13	
Diabetes		1										1	
Dysenteria		1	1		3		2	1	3			11	
Diarrhœa	14	14	13	10	13	8	17	18	15	6	8	136	2
Dyspnœa	8	3		4	4			1	3		2	25	
Dyspepsia	16	16	9	14	11	5	29	19	16		11	146	
Dysuria	1			1	3		1	2	2			10	
Eczema					1							1	
Erythema nodosum	2					1			3			6	
—— marginatum					1							1	
Erysipelas	4	2	3	5	3	14	8	5	5	1	3	53	
Enteritis	3	1	2	3			2		2			13	3
Entrodynia		10		8	2				6		4	30	
Enuresis					1				1			2	
Epilepsia		2	1	1	1			1	2			8	
Epistaxis		1							1			2	
Febris remittens	9	23	11	6	20	31	5	8	8	14	2	137	1
—— intermittens	7	2	1	3		5	4	1	4	1		28	
—— puerpera				2	1			1		3		7	
Gastritis								2				2	
Gastrodynia	14	5	3	6	3	1			8	5	3	48	
Hæmatemesis		1		1	1					2		5	
Hæmoptoe	8	2		2	2	3	3	1			2	23	3
Hæmorrhois	4	2	2	3	6	1	2	3	7	7	2	39	1
Hepatitis	4	1	8	7	6	5	5	1	6			43	1
Hysteria	2	1	1	4	10	3	2	5	5	3	2	38	
Hysteritis	1			1	1		2				3	8	
Hydrocephalus	2		2	1			1		2	5		13	4
Hydrothorax	1				1	2			1	1		6	2
Herpes	5			3	2		1	1	4	2	2	20	
Hypochondriasis	6	1	1		3	1	1		5		2	20	
Icterus	3	1		2	1		2		3		2	14	

DISEASES.	1 S. W.	2 S.	3 S. E.	4 E.	5 N. E.	6 N	7 N. W.	8 W.	9 Surry sideW	10 Surry sideE.	11 Hamp Highg	No. of Cases.	Fatal.
Impetigo	2				1	4	1	1	6			15	
Ischuria		2		1	1		1		1	1		7	
Leucorrhœa	7				5		6	1	8		4	31	
Lepra	1			2			1	1				5	
Lichen				1	6	2		1	6	1		17	
Mania		1	1	1	2		5	1	3			14	
Menorrhagia	9	4		3	2	2	11	4	10	1	2	48	
Miliaria	6		2		1				3			12	2
Morbi Infantiles*	16	10	2	11	10	19	30	45	22	30	5	200	9
——— Biliosi	33	10	49	12	10	25	9	18	32	39	7	244	
Nephritis				1	1		1	2	2			7	
Odontalgia		1				2			2			5	
Obstipatio	7	5	1		8	5	11	5	4	2	4	52	
Ophthalmia	10	11	6	5	8	4	4	7	6	7	7	75	
Phlogosis	3					1						4	
Pemphigus				2				1				3	
Paralysis	1	4	3	5	5		4	3	3	1		29	3
Phthisis Pulmonalis	5	3	3	4	6	3	12	2	1	1		40	6
Pertussis	24	10	1	1	6	2	1	10	7	4	4	70	4
Peritonitis	2		1	1			4	1	3		2	12	2
Phrenitis			1			1	1	2			2	7	2
Pneumonia	4	12	1	4	10		14	3	5	11	2	66	5
Pleurodyne		1				1			2			4	
Podagra	6	3		2	2	2	4	3	4		2	25	1
Porrigo larvalis		2			2		1		1			6	
——— scutulata	4	1			1	1			3		1	11	
——— favosa	1		1		6		3	3	4			18	
Psoriasis	8	1	2	2		2	3	3	7		2	30	
Prurigo preputialis	1											1	
Purpura										1	1	2	
Pyrosis	2	4	1		1		2		3			13	
Rachitis		2			1		2			1		6	
Rheumatis. acut	16	10	1	10	7	18	5	7	8	4		86	
——— chron.	4	2		7	24	5	17	8	9	8		79	
Rubeola	26	25		1		2	44	21	7	11	4	141	5
Roseola	12					2			3			17	
Scabies	1	3			14		59	8	5	8		93	
Synochus		9			9				3			21	
Scarlatina simplex	2			2	1	2	2	2				11	
——— anginosa	3						2		2	1		8	
Splenitis			1									1	
Scorbutus				2								2	
Scrofula	10	1	6	8	3		2	1	5	1	2	39	
Typhus		2			1	4	6		2			15	5
Tabes Mesenterica	1	1	5		1		6	1	3	1	2	21	2
Tic Doloreux	1							1				2	
Variola	2			1	3	1	11	4	3	4		29	5
Varicella	1	1		1	3		6	1	6	4	2	25	
Vermes	12	5		8	1	4	2	1	10	3		46	
Vertigo	5		4	7	2		6	5	3	6	3	41	1
Urticaria	1		1		2	2	1	1	2		4	14	
Total No. of Cases	496	325	204	251	371	261	485	39[illegible]	484	249	147	3550	
Total of Deaths													98

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Biliosi*, such Complaints as are popularly termed bilious, but cannot be accurately classed.

☞ It is particularly requested that the fatal termination of any disease be carefully noted in the column for Deaths. The EDITORS will also be infinitely obliged to their Reporters, if, on the backs of their Registers, they will briefly notice any thing remarkable in the Cases, or in the remedies applied.

pened the same day, (the 15th ult.) when the thermometer was at 74° the highest, except on the preceding day, during this year.

Scarlatina, which last month was rife, is much diminiseed.

Rubeola and Pertussis continue to spread; though much more prevalent in some parts of the town than in others. Both first appeared in the southern and western districts, and gradually extended their contagion east and north, though they are still most general in those parts where they seemed to originate. Neither has been attended with any thing singular or fatal. One only of the five deaths from Measles was in private practice. A case of malignant Rubeola occurred in the 1st, or south-west, district, and assumed all the character of Typhus; but it ultimately did well. In the practice of the same individual, he has seen twelve cases of Roseola since the last report; in some of them many specks on the fauces, &c. appeared.

Impetigo figurata was in an intemperate man, suffering also by epilepsy. The disease was very extensive. After the failure of many remedies under the direction of various persons, he was most relieved by the Pilul. Hyd. Comp. and small doses of Vin. Antim, with the tepid bath twice a week.

One case of Lepra, was in a young lady of sixteen, who from motives of delicacy had concealed the complaint until it began to make its appearance on the face. The whole of the trunk, and both the superior and lower extremities were covered with the eruption. Her general health was, nevertheless, very little impaired, except that she was languid, and much debilitated by that round of visiting and dissipation which usually attends, what is denominated, "bringing out a young lady." The medicines ordered were, Pil. Submur. Hydrarg. gr. v. night and morning; with five minims of the arsenical solution, and thirty of the solution of potass in a cupful of decoction of Dulcamara, three times a day. She was ordered, also, to use the warm bath twice a week. Under this plan the disease is rapidly yielding.

The fatal case of Gout was in a woman aged 78. It first attacked the upper, then the lower extremities; and lastly the head with such violence as to occasion death in twelve hours. Two of the cases of Vermes were Tenia: in one of them Spiritus Terebrithinæ ℥iss. was given for a dose, without producing any very decided benefit.

One of the cases placed under the head of Cholera seemed to partake more of the nature of Melæna, vomiting occurring with frequent stools, which at first were of unmixed blood; afterwards of blood mixed with bile, terminating with numerous bilious stools, continuing for several days. Most of the cases of Synochus, or sub-inflammatory fever, were likewise attended by bilious vomiting and diarrhœa, which in several instances seemed to put a stop to the fever.

One of our Reporters mentions that upon examining the bodies of patients dying of Anasarca, Hæmoptoe, Pneumonia, and Phrenitis, in the first, the liver was found tuberculated; in the second, death was caused by suffocation; the third by the effusion of coagulable lymph in the parenchyema of the lungs; and in the fourth, four ounces of fluid were collected in the ventricles of the brain.

Among the numerous instances that arise to shew the necessity for legislative interference for the regulation of Medical Practice, the following, contained in a letter to us from Evesham, is not among the least striking. "There is now, April 21, in the borough of Evesham, a preacher inoculating small pox for two-pence per head. Several children have died of this

inoculation. The inoculator never attends to them after inserting the virus, gives no medicine, nor instruction as to management."

Curious Preservation of a Human Body.—In opening a communication between two mines, at Fahlun, the corpse of a miner was found completely preserved, and in a state of softness, being impregnated with the vitriolic water of the mine. When exposed to the open air, it became stiff. The features were not recognized by any person present: but tradition had prolonged the recollection of the accident, by which he had been involved in the bowels of the earth more than half a century.

Extraordinary Fecundity.—Friday, March 4th, at 11 A. M. the wife of Mr. James Pickworth, Grazier, of Sempringham, Lincolnshire, was delivered of two male children. She was as well as usual the following day. On Sunday, at 1 P. M. she was delivered of two more male children. There were then 10 children alive, the eldest of whom was six years old the 27th of last January. Two of the infants died on the Tuesday, another on Thursday, and the other on Friday.—Mrs. P. had passed the eighth month only of her pregnancy. She is rather a delicate woman.

In the thirty-six dioceses of the Russian empire, in 1811, there were born 634,697 males and 671,450 females; and there died 503,999 males and 432,369 females. There died between the ages of 100 and 105, 467; between 105 and 110, 113; three of 140; one of 150; and, in the diocese of Ekaterinoslaw, a man between 200 and 205! *Petersburgh Gazette.*

M. Cuvier has in forwardness a large work on Comparative Anatomy.

Mr. William Lawrence has been elected Joint-Surgeon to the London Infirmary for Diseases of the Eye.

Monthly Prices of Substances *employed in* Pharmacy.

(H signifies higher in price; L lower, since the last Report.)

		S.	D.
Acaciæ Gummi elect.	lb.	4	0
Acidum Citricum		28	0
—— Benzoicum	unc.	6	6
—— Sulphuricum	P. lb.	0	7
—— Muriaticum		1	0
—— Nitricum		2	6
—— Aceticum	cong.	4	6
Alcohol	M. lb.	4	6
Æther sulphuricus		10	6
—— rectificatus		12	0
Ærugo	lb.	6	6
Aloes spicatæ extractum		6	0
— vulgaris extractum		5	6
Althææ Radix		1	3
Alumen		0	5
Ammoniæ Murias		3	0
—— Carbonas		3	0
Amygdala dulcis		5	9
Ammoniacum (Gutt.)		8	0
—— (Commun.)		3	6
Anthemidis Flores		2	3
Antimonii oxydum			
—— sulphuretum		1	0
Antimonium Tartarizatum		5	6
Arsenici Oxydum		1	0
Assafoetida Gummi-resina		7	6
Aurantii Cortex		3	6
Argenti Nitras	unc.	6	9
Balsamum Peruvianum	lb.	26	0H
—— Tolutanum		18	0
Benzoinum elect.		10	0
Calamina præparata		0	4
Calumbæ Radix		3	0
Cambogia		9	6
Camphora		9	6L
Canellæ Cortex		3	6
Cardamomi Semina opt.	lb.	14	6
Cascarillæ Cortex		6	0L
Castoreum	unc.	4	6
Catechu Extractum	lb.	2	4
Cetaceum		3	0
Cera alba		4	0
—— flava		3	6
Cinchonæ cordifoliæ Cortex (yellow)		8	6
—— lancifoliæ Cortex (quilled)		10	6
—— oblongifoliæ Cortex (red)		16	0
Cinnamomi Cortex		18	6
Coccus (Coccinella)	unc.	4	6
Colocynthidis Pulpæ	lb.	9	0
Copaiba		7	6
Colchici Radix		3	6
Croci stigmata	unc.	4	6
Cupri sulphas	lb.	1	0
Cuprum ammoniatum		12	0
Cuspariæ Cortex		4	0
Confectio aromatica		10	0
—— Aurantii		3	6
—— Opii		6	0
—— Rosæ Caninæ		2	0
—— Rosæ Gallicæ		2	6
—— Sennæ		1	8
Emplastrum Lyttæ		7	6
—— Hydrargyri		3	0
Extractum Cinchonæ	unc.	3	0
—— Cinchonæ resinos.		4	6
—— Colocynthidis		2	6
—— Colocynthidis comp.		1	6
—— Conii		0	6
—— Gentianæ		0	6
—— Glycyrrhizæ	lb.	3	6
—— Hæmatoxyli	unc.	[illegible]	6
—— Humuli		6	6

Substance		S.	D.
Extractum Hyosciami	unc.	1	0
—— Jalapæ - *2s. 0d.*	Res.	3	6
—— Opii		3	6
—— Papaveris		1	0
—— Rhæi		2	6
—— Sarsaparillæ		0	9
—— Taraxaci		0	6
Ferri carbonas	lb.	0	9
— sulphas		1	3
Ferrum ammoniatum		4	0
—— tartarizatum		4	6
Galbani Gum-resin.		8	0
Gentianæ Radix		1	0
Guaiaci Resina		6	6
Hydrargyrus purificatus		5	6
Hydrargyri Oxymurias	unc.	0	8
—— Submurias		0	9
—— Nitrico-Oxydum		0	8
—— Oxydum Cinereum		1	4
—— Oxydum rubrum		5	6
Hydrargyrus præcipitatus albus		0	9
Hydrargyri Sulphuretum rubrum		0	8
Hellebori nigri Radix	lb.	2	6
Ipecacuanhæ Radix		28	0
—— Pulvis		29	0
Jalapæ Radix		6	3
—— Pulvis		7	0
Kino		20	0
Liquor Plumbi Acetatis	M. lb.	1	4
— Ammoniæ		1	6
Linimentum Camphoræ comp.		6	0
Lichen Islandicus	lb.	1	10
Lyttæ		14	0
Magnesia		9	0
Magnesiæ Carbonas		2	6
—— Sulphas, opt.		1	4
Manna optima		9	0
— communis		6	0
Moschus pod, *26s.*	in gr. unc.	36	0
Mastiche	lb.	6	6
Myristicæ Nuclei		24	0
Myrrha elect.		7	0
Olibanum		3	0
Opoponax		26	0
Opium (Turkey)		36	0
Opium (East India)		34	0
Oleum Amygdale	lb.	5	6
— Anisi	unc.	2	9
— Anthemidis		6	0
— Cinnamomi Cassia		8	0
— Caryophilli		5	6
— Cajuputi		6	6
— Carui		1	9
— Juniperi		4	0
— Lavendulæ		4	0
— Lini	cong.	7	6
— Menthæ piperitæ	unc.	4	6
— — viridis		2	0
— Olivæ	cong.	26	0
— Olivæ secundum		18	0
— Pimentæ	unc.	5	0
— Ricini optim.	(per bottle)	10	6
— Rosmarini	unc.	0	9
— Succini *2s. 4d.* ——	rect.	4	0
— Sulphuratum	M. lb.	1	4
— Terebinthinæ		1	9
— — rectificatum		2	3
Papaveris Capsulæ	(per 100)	3	0

Substance		S.	D.
Plumbi Carbonas	lb.	0	8
— Superacetas		2	6
— Oxydum semi-vitreum		0	8
Potassa Fusa	unc.	0	9
— cum Calce		0	6
Potassæ Nitras	lb.	1	0
— Acetas		8	0
— Carbonas		1	6
— Supercarbonas		4	[illegible]
— Sulphas		1	0
— Sulphuretum		2	0
— Supersulphas		0	0
— Tartras		3	0
— Supertartras		2	0
Pilulæ Hydrargyri	unc.	0	9
Pulvis Antimonialis		0	8
Resina Flava	lb.	0	5
Rhæi Radix (Russia)		30	0
—— (East India)		12	0
Rosæ Folia		12	0
Sapo (Spanish)		2	6
Sarsaparilla Radix		6	0
Scammoneæ Gum-Resina	unc.	2	6
Scillæ Radix siccat	lb.	5	6
Senegæ Radix		4	0
Sennæ Folia		7	0
Serpentariæ Radix		21	0
Simaroubæ Cortex		4	6
Sodæ Boras		4	8
— Sulphas		0	9
— Carbonas		7	0
— Subcarbonas		1	6
— — exsiccata		4	0
Soda tartarizata		3	0
Spongia usta		24	0
Spiritus Ammoniæ	M. lb.	4	0
—— —— aromaticus		4	0
—— —— fœtidus		4	0
—— —— succinatus		5	0
— Cinnamomi		2	6
— Lavendulæ		4	6
— Myristicæ		3	6
— Pimentæ		3	6
— Rosmarini		4	0
— Ætheris Aromaticus		5	6
— — Compositus		5	6
— — Nitrici		4	0
— — Sulphurici		6	6
— Vini rectificatus	cong.	26	0
Syrupus Papaveris	lb.	2	0
Sulphur		0	5
— Sublimatum		0	8
— Lotum		1	0
— Præcipitatum		1	0
Tamarindus opt.		2	6
Terebinthina Vulgaris		0	10
Terebinthina Canadensis		6	6
Terebinthina Chia		7	6
Tragacantha Gummi		9	6
Valerianæ Radix		1	10
Veratri Radix		1	6
Unguentum Hydrargyri-fortius		5	6
—— —— Nitratis		2	8
—— —— Nitrico-oxy.		3	0
Uvæ Ursi Folia		2	6
Zinci Oxydum		5	6
— Sulphas purif.		2	6
Zingiberis Radix opt.		2	6

Prices of New Phials per Gross.——8 oz. *70s*—6 oz. *58s.*—4 oz. *47s.*—3 oz. *45s.*—2 oz. and 1½ oz. *36s.*—1 oz. *30s.*—half oz. *24s.*——The London Glassmen allow 10 per Cent, ready money.——The Manufacturers in the Country, where all Phials are made, allow 27½ discount, at three months credit, (carriage free,) to London.

Prices of second-hand Phials, cleaned, and sorted.——8 oz. *46s.*—6 oz. [illegible]—4 oz. *33s.* 3 oz. *30s.*—2 oz. and all below this size, *24s.*—Three months credit.

English Hirudines, *7s.* per dozen at Covent Garden Market.

We are authorized to state to the Medical Public, that, owing to the repeated alterations proposed by the College of Physicians, the Bill, that was intended to be brought into Parliament by the Society of Apothecaries, for "The better "Regulation of the Practice of Apothecaries," &c. is *postponed* to the next Session.

MONTHLY CATALOGUE OF BOOKS.

An Essay on Bronchitis: with a Supplement, containing Remarks on simple Pulmonary Abscess, &c. &c. By Ch. Badham, M.D. Physician of the Household to His Royal Highness the Duke of Sussex, &c. &c. Second Edit. corrected and enlarged. 12mo. Callow.

Elements of Medical Jurisprudence, or a succinct and compendious Description of such Tokens in the Human Body as are requisite to determine the Judgment of a Coroner, and of Courts of Law in Cases of Divorce, Rape, Murder, &c. To which are added, Directions for preserving the Public Health. 12mo. Callow.

A Practical Treatise on Hæmoptysis, or Spitting of Blood. By Geo. Rees, M. D. 8vo. Allen.

INDEX INDICATORIUS.

We acknowledge, with much gratitude, the communication from Huntingdonshire, and will give every facility to the publication of materials which promise to be so valuable to medical science.

To the query sent to us by M. M. *respecting the* Cerotti di Napoli, *we can only answer that we are altogether unacquainted with that cerate, but suppose it may be some obscure nostrum of doubtful efficacy. To oblige* M. M. *we submit his inquiry respecting its composition to our correspondents, who may, perhaps, give him some information.*

The communication from Dr. Adams, *with various others, are under consideration.*

The remaining portion of the Half-Yearly Report, containing a Nosological Table of the Diseases of the preceding Six Months, with the State of Weather apparently connected with them, will be given in the next number.

The hourly-expectation of a large collection of German Medical Journals, *consigned to us, and now, we believe, arrived in the river, will enable us to supply our Readers with, we trust, much novel information.*

The case of Internal Hernia, with an engraving, and some account of the extraordinary Lusus Naturæ, *exhibited in a youth of eighteen years of age, in whose abdomen, after death, a fœtus was found, shall be given in our next Number.*

Communications intended for insertion in the subsequent Number, should reach us before the 12th of the month. They are respectfully solicited, and should be addressed (free of expence) to Mr. Burrows, *Bloomsbury Square; by whom Books for the Review Department, Articles of Intelligence, &c. &c. will also be received.*